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BALTIMORE, JUNE 1, 1911.

THE BALTIMORE & OHIO RAIL- ROAD AND WEST VIRGINIA.

The Baltimore & Ohio Railroad begins in this issue of the MANUFACTURERS RECORD to tell something of the marvelous resources of West Virginia, one of the most richly endowed sections of the world. The management of the Baltimore & Ohio is fully appreciative of how singularly fortunate that road is in having as a part of its territory a country with such great natural resources of coal, oil and gas, timber and limestone, and other things which furnish a foundation for great industrial development, and which give to West Virginia possibilities for becoming one of the greatest freight-creating centers in the world.

Within the last year or two the Baltimore & Ohio has been vigorously at work spending many millions of dollars in the betterment of its lines through West Virginia, improving its road by building tunnels, double-tracking, increasing its rolling stock, and in every way equipping itself to handle much larger volume of freight with greater facility. In seeking to provide transportation ahead of the growth of West Virginia by the millions it has been expending in that State, and now by the campaign of broad advertising which it begins with this issue of the MANUFACTURERS RECORD to call the attention of the world to the resources of that State for industrial development, it is setting an example to other railroads in Virginia and West Virginia, and to every railroad in the South and Southwest which is not already doing work of a similar broad character.

PUBLIC WORK BY CONTRACT.

In his comprehensive message to the Legislature, which has been wisely printed in permanent pamphlet form, Governor Albert W. Gilchrist of Florida cites from the report of the trustees of the internal improvement fund an illustration of the benefits to be derived from public work done under contract. Dealing with the reclamation of the Everglades, this report shows that between July, 1906, and July, 1910, the State excavated a total of 29.08 miles of canal, and that between July 1, 1910, and March 1, 1911, the Furst-Clark Construction Co. of Baltimore, which in June, 1910, was given a contract to excavate about 184 miles, had excavated 24.6 miles. Not only has there been under the contract greater speed than under immediate State auspices, but the cost of excavation per cubic yard has diminished until it is estimated that the cost of the entire excavation by the contracting company will be about 9 cents. The report says:

It cost the State prior to January 1, 1909, 13.01 cents per cubic yard for excavation, and from January 1, 1909, to July 1, 1910, 10.08 cents per cubic yard, and as the work of excavation per cubic yard would have chobee, getting farther and farther from the base of supplies, making it more difficult to get supplies and fuel to the dredges, the cost of excavation per cubic yard would have naturally increased. The fact that it is being demonstrated that by contract the cost of excavation per cubic yard will in all probability be about 9 cents, or 1.08 cents per cubic yard less than the lowest figure that the State was able to do the work for, unmistakably demonstrates the economy of letting the contract, to say nothing of the matter of greatly advancing the completion of the work, the contract calling for the completion of same on or before June 25, 1913.

Saving of time in the completion of the 205 miles of canals covered by this contract is of special importance, considering the enormous advantages to accrue to Florida with the reclamation of an area about the size of the State of Maryland and the consequent addition to its agricultural productivity. But there are other economies in work by contract. Seldom can a State engage in public improvements without politics intervening in one way or another, and that always means waste. The successful and dependable contractor cannot afford to permit such wastes, especially if he has contracts obtained through competitive bidding. In competition estimates must be scaled down to the minimum. Illustrative of that fact and of the consequent advantages to States, cities and counties, and even railroads, in letting work through competitive bidding is a statement made to the MANUFACTURERS RECORD by Mr. Thomas W. Cothron, an engineer of Greenwood, S. C., as to the schedule of bids for sewer work at Rock Hill, S. C. There were twelve bidders—John J. Cain, Columbia, S. C.; I. C. Mishler, Chattanooga, Tenn.; Sullivan, Long & Hagerty, Bessemer, Ala.; H. S. Bosler, Chattanooga, Tenn.; P. J. Curran, Knoxville, Tenn.; Greenwood Hardware Co., Greenwood, S. C.; Guild & Co., Chattanooga, Tenn.; Johnson & Mat-

thews, Florence, S. C.; Meeks Construction Co., Atlanta, Ga.; McCarlin Construction Co., Birmingham, Ala.; Robertson Construction Co., Charlotte, N. C.; and Stewart & Jones, Rock Hill, S. C. Referring to this schedule, Mr. Cothron writes:

This demonstrates that it pays to advertise for bids in your paper. One insertion, costing \$7.50, brought 35 inquiries, and nine of the above bids were directly traceable to the MANUFACTURERS RECORD. You will notice that all are high-class contractors and are from rather a large territory.

INDIVIDUAL ENTERPRISE WITH PUBLIC BENEFITS.

The movement which has for several years been instrumental in bringing Southern buyers to Baltimore has received a distinct impetus in the recent action of the Baltimore Bargain House in deciding to arrange for free round-trip excursions to this city from points in the South for the benefit of retail merchants who wish to reach the Baltimore market for their purchases of fall goods. This individual enterprise has been consummated after consultation between Mr. Jacob Epstein, proprietor of the Baltimore Bargain House; his assistant, Mr. Nelson, and President Key Compton of the Chesapeake Steamship Co., who discussed the subject with officials of the Southern Railway Co.

The co-operation of the railroads and steamship lines was needed in order to make the trip a success in the way of treating the travelers as guests of the Baltimore Bargain House, and as it was a new proposition it required some consideration by the responsible authorities. But as the broad plan on which the move is being made, and the fact that it would result in benefit to Baltimore, to the railroads and to the steamship companies were understood, means of carrying out the details were soon formulated, and as President Compton expressed it, "the ice was broken," and other railroads besides the Southern immediately joined their forces. Six special dates, trips and trains of nine cars each have been planned. These trains will be for the exclusive use of the guests of the Baltimore Bargain House, and every attention will be shown them during the trip and while in Baltimore. These trips are to be free to the persons who complete arrangements with the Baltimore Bargain House Free Trade-Trip Bureau, Baltimore. Those who avail themselves of the opportunity are in no way limited to the amount of purchases or with whom they deal while in the city.

The first of these six free trade-trips will be on July 24, and the last on August 28. There will also be seven free excursion trips from Jacksonville and Savannah via the Merchants & Miners' Transportation Co.'s steamers. As an illustration of big, broad ways of doing things, this piece of individual enterprise by a mercantile house is hard to beat. It explains why the Baltimore

Bargain House is doing a business of about \$15,000,000 a year.

MANUFACTURING INTERESTS OF THE SOUTH AND THE COUNTRY.

Of the \$24,000,000,000 worth of annual products of manufacturing in the United States, \$3,000,000,000 worth, or one-eighth, is of the South, according to conservative estimates based upon returns to date of the census of factories in 1909. These estimates show an increase in the capital invested in Southern factories between 1904 and 1909 from \$1,597,636,872 to \$2,419,165,000, or \$821,528,128, equal to 51.4 per cent., and in the value of products from \$1,787,976,325 to \$2,531,595,000, or \$743,618,675, equal to 41.5 per cent. The figures for the ten Southern States already reported show an increase in capital from \$1,144,722,515 to \$1,651,249,000, or \$506,526,485, equal to 44.3 per cent., and in products from \$1,233,231,100 to \$1,672,271,000, or 35.6 per cent. Comparison of these Southern States in 1904 and 1909 is made in the following table:

Capital.		
States.	1904.	1909.
Alabama.....	\$105,382,859	\$173,479,000
Arkansas.....	46,306,116	70,129,000
Dist. of Columbia.	30,199,783	30,571,000
Florida.....	32,971,982	65,128,000
Georgia.....	135,211,551	202,913,000
Kentucky.....	147,282,478	172,779,000
Louisiana.....	159,819,608	221,806,000
Maryland.....	201,877,966	251,237,000
Mississippi.....	50,256,369	72,383,000
North Carolina.....	141,009,639	217,183,000
South Carolina.....	113,425,224	173,221,000
Tennessee.....	162,439,481	229,476,000
Texas.....	115,664,871	188,479,000
Virginia.....	147,989,182	217,183,000
West Virginia.....	86,829,823	129,479,000
Total.....	\$1,597,636,872	\$2,419,165,000
Missouri.....	\$379,369,000	\$442,847,000
Oklahoma.....	\$16,124,000	\$38,873,000

*Including estimates for four States.

Products.		
States.	1904.	1909.
Alabama.....	\$109,169,922	\$146,431,000
Arkansas.....	53,804,394	74,818,000
Dist. of Columbia.	18,459,159	22,734,000
Florida.....	59,298,200	120,641,000
Georgia.....	151,040,455	202,641,000
Kentucky.....	159,753,968	223,754,000
Louisiana.....	186,379,592	223,928,000
Maryland.....	243,375,966	317,570,000
Mississippi.....	57,451,445	80,555,000
North Carolina.....	142,520,776	216,614,000
South Carolina.....	79,276,262	113,236,000
Tennessee.....	137,960,476	229,476,000
Texas.....	159,528,389	289,476,000
Virginia.....	148,856,525	217,183,000
West Virginia.....	99,040,676	129,479,000
Total.....	\$1,787,976,325	\$2,531,595,000
Missouri.....	\$439,549,000	\$572,085,000
Oklahoma.....	\$24,459,000	\$53,682,000

*Including estimates for four States and the District of Columbia.

What is still before the South as a manufacturing section is indicated in a comparison of what the six New England States have done in the five-year period as shown in the following table of capital in factories and the products of them:

Capital.		
States.	1904.	1909.
Connecticut.....	\$373,284,000	\$517,547,000
Maine.....	143,708,000	202,290,000
Massachusetts.....	965,949,000	1,279,687,000
New Hampshire.....	169,466,000	139,871,000
Rhode Island.....	215,861,000	289,476,000
Vermont.....	62,659,000	73,479,000
Total.....	\$1,870,996,000	\$2,592,253,000
Products.		
States.	1904.	1909.
Connecticut.....	\$369,082,000	\$490,272,000
Maine.....	144,020,000	176,029,000
Massachusetts.....	1,124,092,000	1,491,032,000
New Hampshire.....	123,611,000	164,461,000
Rhode Island.....	202,110,000	279,438,000
Vermont.....	63,084,000	68,210,000
Total.....	\$2,025,999,000	\$2,698,542,000

A great part of the material for fac-

ories in New England, as well as the fuel, has to be brought long distances, in many cases from the South itself, rich in practically every natural resource for manufacturing. The increase in the five-year period in the capital invested in New England factories was from \$1,870,996,000 to \$2,502,253,000, or \$631,257,000, or 33.7 per cent., and in the value of products from \$2,025,999,000 to \$2,669,542,000, or \$643,543,000, or 31.7 per cent. The factory capital in New England in 1909 was greater by \$83,000,000 than the estimated total capital in factories in the whole South in that period, and the value of New England factory products was \$138,000,000 more than the value of the estimated output of factories in the South. The increase in capital in New England factories between 1904 and 1909 was \$125,000,000 greater than the increase in the ten Southern States reported, and the increase in the value of New England factory products was \$205,000,000 greater than the increase in the factory products in the ten Southern States. This marked difference between New England and the South is emphasized in a comparison as between New England and the ten Southern States fully reported, of the values added by manufacture arrived at in the census by subtracting the cost of materials from the gross value of the products, it being borne in mind that such material as lumber, cotton yarns, pig iron, etc., classed as ultimate products of Southern factories, become materials for New England factories. In New England this value added to materials by manufacture amounted to 81.5 per cent. in 1904, and 80.2 per cent. in 1909, and in the South to 78.5 per cent. in 1904 and 79.1 per cent. in 1909. These figures show an approach of the South to the New England plane in this respect, but what New England is doing in the production of goods of finer and ultimate character is illustrated in the difference between the value of a ton of pig iron and of the same ton converted into steel, watch springs, an advance still largely to be undertaken by the South, in spite of that section having already between 200 and 300 separate kinds of manufacturing industries. No more striking illustration of the tremendous possibilities of the South could be given than the fact that Massachusetts in 1909 turned out from its factories products to the value of \$1,491,032,000, an amount within \$182,000,000 of the total value of the products of factories in all the Southern States except Tennessee, Texas, Virginia and West Virginia. Comparison of the ten Southern States and of New England as to the value added in manufacturing is made in the following table:

Value Added in Factories.

States.	1904.	1909.
Alabama.....	\$48,712,000	\$63,079,000
Arkansas.....	32,065,000	39,374,000
Florida.....	33,766,000	46,702,000
Georgia.....	67,415,000	85,710,000
Kentucky.....	73,309,000	111,975,000
Louisiana.....	68,345,000	89,064,000
Maryland.....	93,352,000	116,585,000
Mississippi.....	31,650,000	43,629,000
North Carolina.....	63,253,000	94,752,000
South Carolina.....	29,407,000	47,223,000
Total.....	\$542,174,000	\$738,693,000
Missouri.....	\$187,291,000	\$219,342,000
Oklahoma.....	\$8,065,000	\$19,529,000

Value Added in Factories.

States.	1904.	1909.
Connecticut.....	\$177,780,000	\$233,013,000
Maine.....	63,878,000	78,928,000
Massachusetts.....	497,682,000	655,267,000
New Hampshire.....	50,395,000	66,320,000
Rhode Island.....	89,238,000	120,786,000
Vermont.....	30,654,000	33,487,000
Total.....	\$909,727,000	\$1,187,801,000

If Massachusetts, with only 8000 square miles of area, with only 3,000,000 people, without any natural resources

on which to build manufacturing can develop so vast an industry that the value of its manufactured products is equal to 89 per cent. of the total of ten of the best manufacturing States in the South, what a future is before the South as it learns to utilize fully its wonderful resources!

Though Massachusetts is not likely to lose its prestige as a manufacturer, it is not the leading manufacturing State of the country. In 1904 it was surpassed as to capital invested in factories, as well as in the value of factory products, by New York, Pennsylvania and Illinois. The returns from these three great manufacturing States in the 1909 census, as well as from minor manufacturing States, will be needed before a positive statement of the manufacturing progress of the country may be made, but sufficient figures are available to form the basis for a safe estimate, as in the following tables:

Capital Invested in Factories.

States.	1900.	1904.	1909.
Alabama.....	\$90,165,904	\$105,382,859	\$173,479,000
Arizona.....	9,517,573	14,396,654	32,875,000
Arkansas.....	25,384,636	46,306,116	70,139,000
California.....	175,467,806	282,647,201	.....
Colorado.....	58,172,865	107,663,500	.....
Connecticut.....	299,206,925	373,283,580	517,547,000
Delaware.....	38,781,402	50,925,630	60,947,525
District of Columbia.....	17,960,498	20,199,783	30,971,000
Florida.....	25,682,171	32,971,982	65,128,000
Georgia.....	79,303,316	135,211,551	202,913,000
Idaho.....	2,130,112	9,689,445	32,377,000
Illinois.....	732,829,771	975,844,799	.....
Indiana.....	219,321,080	312,071,234	508,528,000
Iowa.....	55,697,334	111,427,429	171,289,000
Kansas.....	59,458,256	88,690,117	154,962,000
Kentucky.....	87,965,822	147,282,478	172,779,000
Louisiana.....	100,874,729	150,810,608	221,806,000
Maine.....	14,007,715	143,707,750	202,200,000
Maryland.....	149,155,238	201,877,966	251,237,000
Massachusetts.....	781,867,715	965,948,887	1,279,687,000
Michigan.....	246,986,529	337,894,102	.....
Minnesota.....	133,076,669	184,903,271	275,416,000
Mississippi.....	22,712,186	50,256,309	72,383,000
Missouri.....	223,781,088	379,368,827	442,847,000
Montana.....	38,224,915	52,589,810	44,596,000
Nebraska.....	65,906,052	80,235,310	84,015,000
Nevada.....	1,251,188	2,891,997	9,807,000
New Hampshire.....	92,146,025	109,465,072	139,873,000
New Jersey.....	477,301,565	715,080,174	.....
New Mexico.....	2,160,718	4,638,348	7,396,000
New York.....	1,323,502,651	2,031,459,515	.....
North Carolina.....	68,283,005	141,000,639	217,183,000
North Dakota.....	3,511,968	5,703,837	11,594,000
Ohio.....	570,908,968	856,988,830	.....
Oklahoma.....	4,054,391	16,124,417	38,873,000
Oregon.....	28,359,089	44,023,548	89,082,000
Pennsylvania.....	1,448,814,740	1,955,836,988	.....
Rhode Island.....	176,901,606	215,901,375	284,416,000
South Carolina.....	62,750,027	113,422,224	173,221,000
South Dakota.....	6,051,288	7,585,142	12,971,000
Tennessee.....	63,140,657	102,439,481	.....
Texas.....	63,655,616	115,664,871	.....
Utah.....	13,219,639	26,004,011	52,627,000
Vermont.....	43,489,631	62,658,741	73,470,000
Virginia.....	92,250,589	147,989,182	.....
Washington.....	41,574,744	96,562,621	.....
West Virginia.....	49,103,128	80,820,823	.....
Wisconsin.....	286,009,596	412,647,051	.....
Wyoming.....	2,047,883	2,685,889	5,840,000
Total.....	\$8,975,256,496	\$12,675,580,874	*\$17,996,394,526

*Including estimates for States not yet reported.

Value of Factory Products.

States.	1900.	1904.	1909.
Alabama.....	\$72,109,929	\$109,169,922	\$146,431,000
Arizona.....	20,438,987	28,083,192	50,074,000
Arkansas.....	39,887,578	53,864,394	74,818,000
California.....	257,385,521	367,218,494	.....
Colorado.....	89,097,879	100,143,699	.....
Connecticut.....	315,106,150	369,082,691	490,272,000
Delaware.....	41,321,661	41,180,276	52,871,000
District of Columbia.....	16,426,408	18,359,159	.....
Florida.....	34,183,509	50,298,290	72,724,000
Georgia.....	94,352,368	151,040,455	202,641,000
Idaho.....	3,001,442	8,768,743	22,479,000
Illinois.....	1,120,868,308	1,410,342,129	.....
Indiana.....	337,071,630	393,954,405	578,728,000
Iowa.....	132,870,865	160,572,313	259,268,000
Kansas.....	154,008,544	198,244,982	325,357,000
Kentucky.....	126,508,690	159,753,968	225,754,000
Louisiana.....	112,397,919	186,379,592	221,828,000
Maine.....	112,969,098	144,020,197	176,029,000
Maryland.....	211,076,143	243,375,596	317,570,000
Massachusetts.....	907,626,439	1,124,092,051	1,491,032,000
Michigan.....	319,691,856	429,120,000	.....
Minnesota.....	223,692,922	307,858,073	409,420,000
Mississippi.....	33,718,517	57,451,445	80,555,000
Missouri.....	316,394,065	439,548,857	572,085,000
Montana.....	52,744,997	66,415,452	80,468,000
Nebraska.....	139,302,453	154,918,220	188,669,000
Nevada.....	1,251,005	3,096,274	11,887,000
New Hampshire.....	107,590,803	123,610,904	164,461,000
New Jersey.....	553,005,684	774,369,025	.....
New Mexico.....	4,060,924	5,705,880	7,599,000
New York.....	1,871,830,872	2,488,345,579	.....
North Carolina.....	85,274,083	142,530,776	216,614,000
North Dakota.....	6,259,840	10,217,914	19,150,000
Ohio.....	748,670,855	960,811,557	.....
Oklahoma.....	8,133,936	24,459,107	53,882,000
Oregon.....	26,392,714	55,535,123	93,032,000
Pennsylvania.....	1,649,882,389	1,955,551,332	.....
Rhode Island.....	165,550,382	202,109,583	279,438,000
South Carolina.....	53,335,811	79,376,262	112,236,000
South Dakota.....	9,529,946	13,085,333	17,845,000
Tennessee.....	92,749,129	137,960,476	.....
Texas.....	92,844,433	150,528,389	.....
Utah.....	17,981,648	38,926,464	61,969,000
Vermont.....	51,515,228	63,083,611	68,310,000
Virginia.....	108,644,159	148,856,525	.....
Washington.....	70,831,345	128,821,067	.....
West Virginia.....	67,096,822	99,040,676	.....
Wisconsin.....	236,752,878	411,139,681	.....
Wyoming.....	3,268,555	3,523,290	5,948,000
Total.....	\$11,406,926,701	\$14,793,902,563	*\$20,334,160,041

*Including estimates for States not yet reported.

figures for hand trades, building trades and neighborhood industries included with manufactures in 1900. In that year the \$8,978,256,496 capital in factories was 91 per cent. of the \$9,831,486,500 of capital in manufactures in the country, and the \$11,411,121,122 worth of factory products was 87 per cent. of the \$13,010,036,514 worth of manufactured products. Estimating the factory capital in 1900 at 92 per cent. of total manufacturing capital and the factory products at 88 per cent. of manufactured products, will give a total manufacturing capital of \$19,500,000,000, and a total value of manufactured products of \$23,100,000,000. More than one year has elapsed since the date of the figures of the 1909 census, and it is reasonable to estimate the present manufacturing capital of the country at \$20,000,000,000, and its manufactured products at \$24,000,000,000 annually.

The \$968,406,607 factory capital of the South in 1900 was 85 per cent. of the \$1,153,002,368 invested in manufacturing, and the \$1,239,745,459 value of factory products was 86 per cent. of the \$1,463,643,177 value of manufactured products. Estimating the factory capital of the South in 1909 at 88 per cent. of the total manufacturing capital and the value of factory products at 87 per cent. of the total value of manufactured products, will give a total manufacturing capital in the South in 1909 of \$2,880,000,000, and a total value of manufactured products of \$2,900,000,000. The increase since 1900 would bring the total value of products to something more than \$3,000,000,000 annually.

DANGER OF SOUTH'S INCREASING WEALTH PRODUCING SPECULATION IN WILD-CAT SCHEMES.

Wealth is increasing so rapidly in the South that tens of thousands of people who have not heretofore had any surplus money for investment will now be in a position to buy land or securities or make improvements to farm or city properties. This wealth, coming to many after long years of struggle, is liable to bring about speculation in get-rich-quick concerns. It is entirely safe to say that millions of dollars of Southern money will be wasted in wild-cat enterprises of every kind. The unscrupulous promoter will hunt out every man and woman with a few surplus dollars, whether in city, village or country, and with plausible details present alluring prospects for big dividends. Some of those enterprises will naturally appeal to Southern interests and Southern pride. Details of enormous profits made, or said to have been made, by similar companies in the North and West will be pointed to as reasons why the South should invest in such undertakings. The very fact that the South sends many millions of dollars to the North for insurance premiums, both life and fire, is a legitimate reason for the investment at home whenever it can be done with safety in fire and life insurance companies, but for every successful company brought into existence, promoters will organize many unsuccessful ones, and make the most glowing promises of dividends which will never be paid. It behooves every business man in the South to do all in his power to encourage safe and conservative investments of surplus money. With the continuation of the present increasing wealth of this section a vast

accumulation can be made within the next five or ten years for investments in safe, legitimate undertakings managed by men of known probity and business ability. But hundreds of millions can be dissipated through reckless speculation in cotton gambling in New York, where the cards are always stacked against the outsider; in wild-cat schemes of every variety, many of which will be presented in the most beautifully printed prospectuses and by the most skillful talkers. Southern bankers have a great opportunity and a great responsibility. It is incumbent upon them to conserve the financial strength of the South not for their own good, but for the good of the people. They are in touch with every man of money in their community. They know the farmers who are prospering as well as the merchants who are making money. They know something of the pitfalls into which the unwary investor is being constantly led to his own destruction. They have in every community a power for good not equaled by that of any other class of men. To no other class of men do the people of country, town or of a city turn with the confidence in their business judgment and their unselfish advice about investments as to the bankers. It is in their power to increase this confidence in their work. It is in their power to largely aid in cultivating in a community a habit of thrift, of saving, of investing in home enterprises, in the upbuilding of local communities rather than sending money broadcast for investment in enterprises many of which are doomed to failure.

The MANUFACTURERS RECORD is often in receipt of inquiries from people in the South who have either invested or are figuring to invest in stocks or wild-cat enterprises of the most pronounced kind. It is sometimes amazing to see how people who one would think ought to know better put their money into this and that wild-cat scheme which bases its promise of profits on the vast fortunes made by investors in telephone or other patents. With the limitless opportunities for wise investment in the South, and with the limitless opportunities for the purchase of established securities, where safety is the first consideration, even though the rate of dividend may not be large, the bankers of the South ought carefully and guardedly to seek to prevent the investment of Southern money in wild-cat schemes. By virtue of their position and of their influence a very great responsibility rests upon them.

THE LARGEST LOCOMOTIVE YET.

In this age of big things, when we learn every day of bigger buildings, bigger steamers and bigger fortunes, some of the former making Croesus' little pile of ducats "look like thirty cents," and when all of these things of increasing magnitude are presumably better than any of their predecessors, it is but in harmony with the advancement of men and their works that there should recently be built the largest railroad locomotive by far which has ever been seen, as great an advance—so far as size is concerned—over its brethren on the rails as the Lusitania was over her sisters on the sea.

It is the Santa Fe system which produced this latest leviathan of the steel road that is over 175,000 pounds heavier than the next largest locomotive. As may be supposed, the engine is of the Mallet pattern, and it was built at the shops of the railway com-

pany, which, after constructing two others like it, gave an order to a prominent factory to build ten more of them. They will probably remain the giants of the locomotive world for a long time.

One of these great locomotives without its tender weighs 308 tons, of which 275 tons rest upon the driving wheels, thus giving enormous adhesion, and, consequently, in connection with its powerful mechanism, correspondingly great tractive force, the total of the latter being 111,600 pounds. It is designed to pull freight trains of 2000 tons weight over long and heavy grades, and, together with its tender, turns the scale at 425 tons.

The Mallet type of railroad engine is composed of the tractive machinery of two locomotives, steam being supplied from a boiler of great capacity. The particular class of engine which the Santa Fe has just turned out is what the technical men describe as the 2-10-10-2; that is, it has two leading truck wheels, ten driving wheels in the first group and ten in the second, the latter being followed by a pair of trailer wheels under the rear of the firebox and cab. The length of the locomotive and tender over all is 121 feet 7 inches; the driving wheels are 57 inches, or nearly 5 feet in diameter, and the working pressure of the boiler is 225 pounds per square inch.

It is remarkable that the railroad shops made the first of huge locomotives out of six 2-10-2 engines, which type has been used for some time. Thus the working gear of two locomotives was required to produce one of the Mallets. The success attending the use of these home-made engines caused the company to let a contract for more of them.

It should be remembered that it was a Southern railroad which first used the Mallet type of locomotive in America—the Baltimore & Ohio. It is now used on other lines in the South, including the Clinchfield, besides the Illinois Central and the Southern Pacific, whose lines, like those of the Santa Fe, extend into the Southern States. This pattern of engine has accomplished the hauling of big, heavy trains with ease and economy. For certain kinds of railroad service it is superior, and will doubtless continue in favor with railroad operating men for many years.

TEXAS FARM PRIZES.

Early in February the Texas Industrial Congress announced its offer of \$10,000 in cash prizes for the best crops of corn and cotton raised in the State this year. Details of the offered prizes were published in the MANUFACTURERS RECORD at the time. It is now reported that in addition to the sum offered by the Industrial Congress, local commercial clubs, merchants, banks, individuals and some counties have offered money prizes aggregating \$20,000, while about \$5000 worth of merchandise, seed, etc., have been offered as premiums for the best yields of various farm and garden products made in the State this year. It is estimated that for these prizes there are at least 10,000 contestants. That fact indicates the widespread interest in the movement for better farming in Texas, and the results will doubtless be a great advertisement of the agricultural possibilities of the largest State in the country.

THE COTTON MOVEMENT.

In his report for May 26 Col. Henry G. Hester, secretary of the New Orleans Cot-

ton Exchange, shows that the amount of cotton brought into sight during 268 days of the present season was 11,297,088 bales, an increase over the same period last season of 1,414,076 bales. The net exports were 7,136,771 bales, an increase of 1,684,055 bales. The takings were, by Northern spinners, 1,915,010 bales, an increase of 6033 bales; by Northern spinners, 1,964,612 bales, a decrease of 54,942 bales.

THE PROPOSED ALABAMA IRON CONSOLIDATION AND WATER TRANSPORTATION FOR THE CENTRAL SOUTH.

Details are now being worked out in New York, as previously reported in the MANUFACTURERS RECORD, for the consolidation into one company of the Alabama Consolidated Coal & Iron Co. and the Southern Iron & Steel Co., with the probability that the combination, when effected, will result in the building of an important short line railroad to connect some of these properties with the Warrior River, and the absorption into the enterprise of the Lake Borgne Canal, with a view to developing the shipment of coal and other products via the new line of railroad, the Warrior River and the Lake Borgne Canal to New Orleans and other ports.

The undertaking is a very comprehensive one. If carried out as planned, it would be the most important move for the development of the iron and steel interests and the shipment of coal and iron and steel products by water that has been developed in Alabama since the purchase by the United States Steel Corporation of the Tennessee Coal, Iron & Railroad Co. Investigations as to the feasibility of the railroad enterprise have been made by leading experts not connected with either of these companies.

To carry out the plans which are being discussed will require a very large amount of new money for the betterment of existing plants, as well as for the construction of the railroad and the development of coal-handling facilities at Mobile, New Orleans and other points. It is proposed to very greatly increase the capacity of the steel plant for making wire and other goods of the Southern Iron & Steel Co. at Gadsden, in order to give to that plant a capacity on double turn of about 1000 tons of steel products a day, and to introduce at the other plants of the two companies the most modern facilities wherever changes may be needed.

Joseph H. Hoadley, president of the Alabama Consolidated Coal & Iron Co., and Cecil A. Grenfell of England, of the Southern Iron & Steel Co., and those associated with them in the effort to bring about this consolidation to the benefit of both properties and to the better development of the opportunities of the situation, have been untiring in their work to overcome the many difficulties in the way. If they fully achieve what they have undertaken to do, they will very materially add to the prosperity of Alabama.

The Alabama iron district should make a strenuous effort to develop water transportation in order to reduce the cost of putting its iron and coal into the markets of the world with less freight added than at present. And Chattanooga, with its admirable location on the Tennessee River, ought also so to develop water transportation as to be able to deliver the product of its furnaces and shops into all the country reached by that and the Mississippi River at a freight rate which would greatly strengthen its ability to market its products to profit. Until the South fully develops its water transportation facilities, just as the West has done on the Lakes, it will not be able to secure for its industrial interests as broad a market as its natural advantages jus-

tify. The iron and steel interests of the South are now handicapped by the very heavy cost of putting their product into the great consuming markets of the Central West and of New England, because the South has not as yet given proper attention to the highest development of its water transportation possibilities. The time is, therefore, ripe for a broad campaign to enable Alabama iron and coal to reach the sea at a low cost for freight, and for Chattanooga and other places, located where river transportation is a possibility, of pushing the development of the most efficient means of water transportation.

CHATTANOOGA DISTRICT TO BE INVESTIGATED BY UNITED STATES GEOLOGICAL SURVEY.

About two years ago the MANUFACTURERS RECORD suggested to the Chamber of Commerce of Chattanooga that efforts should be made to have the United States Geological Survey make a complete report on the iron-ore resources of that district, just as had been done for the Birmingham district. As it was not, however, at that time feasible to have the work done by the United States Geological Survey, the MANUFACTURERS RECORD engaged Prof. John J. Porter of the University of Cincinnati to prepare a comprehensive article on the iron and coal resources of the Chattanooga region. Professor Porter's article attracted wide attention, and has been instrumental in enlisting a large amount of capital for the development of the Chattanooga district. Now that the United States Geological Survey, through financial co-operation of the State of Tennessee and the Chamber of Commerce of Chattanooga, proposes to undertake the comprehensive survey of the entire Chattanooga district, including North Georgia and North Alabama, complete information, such as has never before been obtainable in regard to the coal and iron-ore resources and the steel-making possibilities of Chattanooga, should in the near future be available. Similar work should be done wherever possible by the United States Geological Survey, as well as by the geological surveys of individual States.

THE CUT IN STEEL AS VIEWED BY A BALTIMORE IRON MAN.

The cut in steel prices, first announced by the Republic Iron & Steel Co., and which has since been met by the United States Steel Corporation and independent steel makers, is creating much discussion, but one of the leading iron and steel merchants of Baltimore in an interview with the MANUFACTURERS RECORD takes the ground that this reduction in prices will not result in increased sales. He says "this is due to the fact that the actual demand at present is weak, and the middleman has been practically eliminated by the action of the Steel Corporation in selling in any quantity, large or small, to the consumer direct. Prior to the adoption of this system by the Steel Corporation the dealers would take advantage of lower prices to fill up their stocks, but in view of present conditions in the trade they are not now inclined to do so. The Steel Corporation is reported as extending its selling branches to such an extent that anyone desiring to purchase steel or iron, no matter in how small a quantity, can obtain it direct from these selling branches at factory prices. With the middleman thus becoming eliminated, dealers are not inclined to stock up as they would probably have done under conditions that formerly existed in the trade."

LOUISIANA AGRICULTURE.

Between 1900 and 1910, while the total acreage in farms in Louisiana decreased from 11,059,000 acres to 10,519,000, the

number of farms increased from 115,969 to 120,270, and the area of improved land increased from 4,667,000 to 5,268,000 acres, and the value of farm lands and buildings increased from \$141,130,000 to \$238,682,000. The average value per acre of land alone increased from \$9.74 to \$17.97.

FROM COLUMBIA TO THE SEA.

Plans of the Columbia & Atlantic Steamship & Railway Co.

[Special Cor. Manufacturers Record.]

Columbia, S. C., May 29.

Of special interest to shippers in this part of the South, and especially to those of South Carolina, is the fact that the plans of the Columbia & Atlantic Steamship & Railway Co., that have been in making for so many years, are at last working out into tangible form. It is expected that the contract for the most of the boats and other equipment will be let within the next four weeks. Regarding the plans, its purpose and its future plans, Mr. Frank T. Graham, traffic manager of the steamship and railroad company, makes the following statement to the MANUFACTURERS RECORD:

"The enterprise that means more for the business development, for the expansion of the mercantile, manufacturing, industrial and agricultural interest of South Carolina than has anything else that has taken place in this State in the past 40 years, is the Columbia & Atlantic Railway & Steamship Co. of Columbia, S. C.

"Mr. T. C. Williams of Columbia, S. C., is the president of the company. After most careful investigation of the various elements that enter into the plans, he combined them into shape and has given an enterprise that is of greater benefit to every interest in this State than any other, excepting none.

"On the board of directors of this company are men prominent and foremost in the financial, manufacturing and industrial development of South Carolina.

"The capital stock of the company is \$100,000, fully paid up, with none for sale. The company's issue of \$150,000 25-year 6 per cent. gold bonds, subscribed for at par, will be delivered to purchasers July 1, 1911. Various manufacturing, industrial, mercantile and financial institutions are the purchasers.

"Charleston will be the port of entry for South Carolina and for part of the State of North Carolina. Millions of tons of freight that is shipped out of South Carolina to Northern and Eastern markets and to foreign countries, instead of going to Charleston, are shipped to Savannah, Ga.; Wilmington, N. C., and Norfolk, Va., then to destination.

"Our line will divert this business to Charleston, and from there it will be sent to all parts of the world. The volume of business done will be increased many times, requiring the building of more warehouses and the increase of the number of banking and mercantile establishments. The population will be greatly increased, real estate values enhanced, and Charleston will become the second port in size on the South Atlantic seaboard.

"Columbia, S. C., will become a great jobbing and manufacturing center. The low freight rate it will enjoy will induce mercantile and manufacturing establishments to locate there. The population will increase, and in the next decade the expansion and growth of the city will be beyond that pictured by its most optimistic citizen.

"The Piedmont section will save thousands of dollars on its freights. It will reduce the cost of the goods they buy and give them a larger profit on what it ships out. The agricultural interests of the State will be vastly benefited, enabling the



RALEIGH BANKING & TRUST CO. BUILDING.

Proposed structure for Raleigh, N. C.; 80x120 feet; reinforced concrete, with white marble veneer and columns of white marble; three stories high; elaborate and massive cornice and roof design; owner will occupy lower floor; second and third floors for other offices; architect, P. Thornton Marye of Atlanta.

farmer to sell his cotton and other crops at market quotations and make additional profit from freight saving.

"Already arrangements have been made for handling of cotton-mill products, and cotton going out of the State and almost every other commodity coming into the State. To give some idea how far-reaching the scheme is and to what extent it affects shipments, I will say that one of the largest sugar-refining companies in the country has already contracted with us for the handling of 300 tons of sugar per week to go to the Piedmont and central section of the State of South Carolina."

The water route of the Columbia & Atlantic Railway & Steamship Co. will be from Granby Landing, on the Congaree River, to the Santee River, and thence by connecting waterways to Charleston and Georgetown. The steam railway line will connect Granby Landing with the joint yards of all trunk lines entering Columbia. The electric railway line will extend from Granby Landing to the company's city depot, located in the center of the city.

At Granby Landing the company owns in fee a property fronting 1500 feet on the river and running back 565 feet, containing altogether about 11 acres. It is at the natural head of navigation on the Congaree River, and is considered the most advantageous point for landing boats near the city.

The company will construct three large steel steamships, especially designed for the waters on which they will ply. They will be of modern type and equipped with all improved devices for economically loading and unloading freight, and will have searchlights to enable them to operate by night. Each vessel will carry 225 tons at dead low water, and will maintain an average speed of 10 miles per hour. In addition to these a barge line will be installed to facilitate the distributing and gathering of freight. The company's electric line, to be operated in connection with the street railway system of Columbia, will be used to bring shipments destined to Columbia to the central depot, which will be located in the heart of the city. This depot, which will also be used for receiving and delivering freight from any point on the line of the Columbia railway, will consist of a commodious warehouse located at the most convenient point in the city.

The company feels that its project will benefit every section of South Carolina, Columbia being the geographical center of the State, and from it radiating nine railroads serving every part of the State. The effect of giving this section the advantage of water transportation will be to give better freight rates to the cotton-mill indus-

try for receiving raw material and distributing the finished product, the farmers for receiving large quantities of fertilizers, and wholesale houses in general in this section for distribution over a wider territory.

During 1909 freight to the amount of 12,582 tons was brought into Columbia by boat, and 800,000 tons originated at and destined to Columbia were handled by the rail lines. Within a radius of 100 miles of Columbia there are in operation 130 cotton mills, and the freight on the output of these mills is no small item, and as the owners are alive to the importance of lower freight rates at all times, it is felt that considerable of this business can be secured. During 1909, 299,213 bales of domestics were shipped from the Piedmont section to Charleston, and it is felt that water transportation will have the effect of increasing the amount moving through Charleston many times.

The company will have its three steel steamships ready to operate in time to handle business in the coming fall. It is completing its steam railway now, and expects to begin work shortly on its electric railway and build up to where it will be connected with the Columbia street railway lines. Within the next 60 days construction of the terminals at Granby Landing will be started and pushed to completion, also the warehouse, transfer platform about 500 feet long and covered so as to protect the goods, the inclined railway from platform to water, and all other improvements at that point.

ROY G. BOOKER.

The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., May 29.

It must be admitted that it was a bit of the unexpected which one of the steel interests of the country added to market conditions by cutting prices on certain steel lines, at a time, too, when many of the greatest bargain-hunters in those particular lines had about concluded that it was useless to continue further the efforts to break down established schedules in bars, etc. Birmingham has felt this to a certain degree by reason of the fact that pig-iron buyers are now loth to consider further additional purchases for the remainder of their requirements for last half pig-iron. This is a natural conclusion from the buyers' standpoint, but with costs at the high notch they admittedly are in most cases, and with no probability of cuts in wages, it is most doubtful if very much iron can or will be sold below the figures that have been ruling for some time now, and which schedules have become so well established. There is no likelihood of any

further addition to the production rate in Alabama pig-iron, while, on the other hand, it is very doubtful if there will be a decrease, as those stacks now in blast seem to be planning a continuous run through the remainder of the year. The majority of the producing interests are supplying their own total requirements in the way of raw materials, and are, therefore, in shape to meet the situation as it develops from week to week. It still appears certain that but little excess iron is being accumulated in Alabama, and where the stocks are largest there appears but little, if any, inclination to make any attractive shading of prices to induce heavy buying. It is known the large pipe makers will be forced to buy right along through the remainder of the year, while the agricultural implement people have yet to cover much of their needed supply of foundry iron, steel bars, etc. Alabama foundry irons continue very firmly held on about the following schedule of prices f. o. b. cars at furnaces this district: No. 1 foundry, \$11.50; No. 1 soft, \$11.50; No. 2 foundry, \$11; No. 2 soft, \$11; No. 3 foundry, \$10.50; No. 4 foundry, \$10.25; gray forge, \$9.75; mottled, \$9.50.

The water pipe makers continue to fare very well, all things considered. While pig-iron certainly is no stronger, these producers have been able to establish a better schedule of values and have apparently maintained same without the accumulation of any stocks of finished products of consequence. In fact, there is less water pipe on producers' yards in Alabama now than on January 1. The production in this State remains confined to the three foundries that have been running all the year thus far, and it is hardly probable any early addition will be made to the producing rate. Prices are quoted very firm at following schedule per net ton f. o. b. cars this district: Four to six-inch, \$22; 8 to 12-inch, \$21; over 12-inch, average \$20, while gaspipe is \$1 higher.

Old material lines are about the duller in the iron and steel markets of the South. There is so little of actual trading that it is difficult to establish a real schedule of values for all grades, but dealers quote the following per ton of 2240 pounds on yards here:

Old iron axles, standard, \$16.50 to \$17.
Old iron axles, small, \$14 to \$14.50.
Old steel axles, light, \$14 to \$14.50.
Old steel axles, standard, \$15 to \$15.50.
Old iron rails, \$13.50 to \$14.50.
No. 1 railroad wrought, \$12 to \$12.50.
No. 2 railroad wrought, \$9 to \$9.50.
No. 1 country, \$7.50 to \$8.
No. 2 country, \$7 to \$7.50.
No. 1 machinery, \$9.50 to \$10.
No. 1 steel, \$10 to \$10.50.
Tram car wheels, \$9 to \$9.50.
Standard car wheels, \$12 to \$12.50.
Light cast and stove plate, \$8 to \$8.50.

Strictly high-grade foundry coke continues to command a reasonably fair figure, but there is marked difference as to furnace and lower grades, for which there is practically no demand. It is doubtful if there will be very much improvement in the local coal market until there is a marked activity in pig-iron.

Motor Fire Vehicles.

President Culpepper Exum of the Board of Commissioners of Birmingham, Ala., has ordered of the Seagrave Company of Columbus, O., nine motor-driven fire vehicles to cost \$40,000. It is estimated that this change, which reflects the progressiveness of Birmingham, will increase the efficiency of the fire department 30 per cent, and decrease the annual pay-roll by \$30,000. The motor vehicle carries a 40-gallon tank of chemicals.

Cottonseed Crushers Discuss Problems of Their Industry.

"I would like to make contract, and will do so, if offered by responsible parties, for every bushel of white Spanish peanuts that will be raised in Mississippi and Louisiana, at 50 cents per bushel, and every ton of the hay that is made in the two States at the price of \$10 per ton, and will furnish sufficient bond to carry out my end of the contract. It has been found, through my own experiments, that the oil from the peanut is of a very much higher grade than cotton oil, and hence it is not at all a question of finding a market for the oil, but to get a sufficient supply of the raw material from which to make the oil. The market is ready and waiting. The cake, or meal, from the peanut is just as stable as any other cake or meal of like character. This is known by all who know anything of the European market for this class of goods, or it can be verified by the Department of Commerce and Labor and other Government records. Whether the mills in this section will be crushing oil from the peanut next season is problematical, for I am of the opinion that very nearly all of the seed that is raised this season will be wanted, in fact needed, by the new counties that are going to suffer with the boll-weevil, which is spreading, and which counties will be very glad to get the chance to plant the peanut, the most wonderful, the most remarkable, the most profitable product that was ever given to man to develop."

That statement, made by a cottonseed crusher of Mississippi in a letter to the **MANUFACTURERS RECORD**, reflects in striking manner the situation of a Southern industry which in 30 years has increased the number of its plants from 45 to between 800 and 900 and the annual value of its products from \$7,691,000 to about \$110,000,000. Its representatives are to meet next week in annual convention at New York, and in advance the **MANUFACTURERS RECORD** has obtained from them expressions of opinion bearing upon various phases of their business.

The Mississippi crusher who makes the offer for peanuts and for peanut hay is one of a number who are beginning to realize that cottonseed must be supplemented by some other oil-bearing seed, at least temporarily, if the full returns from investments in oil mills are to be enjoyed. The closing season has not been as satisfactory as could be desired because of wide variation in the prices of products and high prices for seed in many localities, due to a shortage in the supply. According to some of the expressions of the oil-mill men, there is a growing conviction that the capacity of the mills as a whole is increasing more rapidly than the amount of seed available. This is attributed largely to the advance of the boll-weevil through the cotton belt. In Texas, where this pest has cut down the supply of seed about one-half in some sections, recovery, from the agricultural standpoint, is taking place through diversification. In Southern and Southwestern Arkansas cotton planters are producing about as well as before the boll-weevil was thought of, because they are planting early and rushing the crop to maturity, but in some portions of the lower Mississippi Valley the boll-weevil has put a number of mills out of business. Farmers in Alabama, the Carolinas and portions of Georgia and Arkansas, which have not been visited, are expecting the weevil at some time in the future, and some of them are preparing for it by giving greater attention to other crops than cotton. Louisiana farmers have already turned to sugarcane growing, and in other States resort is had to a greater use of commercial fertilizers, the increase at some points in North Carolina, for instance, being from 300 pounds to 1000 pounds to the acre, while excellent results are being obtained through following the teachings of State experiment stations showing a profit in feeding stock with a mixture of cottonseed meal and hulls.

Meanwhile, with unfavorable crop conditions in some States and with consideration of the advantages over little mills of cottonseed-oil mills of large capacity at strategic terminal points with fertilizer factories, ice factories or cotton-oil refineries as auxiliaries, crushers are either experimenting with peanuts, copra or soya beans as supplementary material for oil, or are studying their possibilities. At present peanuts seem to have the call in this particular, inasmuch as that crop has been long cultivated in the South. One estimate is that in Mississippi alone between 100,000 acres and 150,000 acres will be planted this year in peanuts, and that the area so planted in Louisiana will probably be 100,000 acres, more than three times the acreage planted last year. It is hardly thought, though, that much of this year's crop will go to the oil mills, but that it will be used for seed to meet the demands which seem to be growing in different parts of the South affected by the boll-weevil. This expansion of acreage is likely to overcome the objection raised in some quarters that there is too great a demand for peanuts for other purposes to warrant oil mills crushing them.

Nevertheless, farsighted crushers feel that if the ravages of the boll-weevil are not checked the time must come when Southern cotton-oil mills must adopt the policy of European crushers. The latter so arrange their plants that they can work any kind of oil-bearing seed. This places them in a position to operate their plants practically all the year around, and makes them independent of any particular oil-bearing seed.

An instance of a condition which may become general is cited from South Carolina. In 1909-10 the farmers of that State marketed 386,257 tons of cottonseed. There are within its borders 111 oil mills and 20 other mills nearby in Georgia and North Carolina. The average tonnage for these mills, if they depend upon South Carolina seed, would be less than 3000 tons. It is argued that this average tonnage is so small as scarcely to provide any profit for some of the mills, and that if the cotton crop should be further decreased by the boll-weevil or any other cause in that particular territory, disaster would come to the business unless some other product is available for crushing.

While some crushers look to the time when the South alone will consume all the products of the oil mills, the question at present with many of them seems to be not

how to obtain a greater market, but how to obtain the crushing material to keep the mills in profitable operation.

How this question is viewed from a number of standpoints is revealed in the following letters from cottonseed crushers:

ALABAMA.

ASSEMBLING INDUSTRIES ABOUT CRUSHING PLANT.

J. M. Kyser, general manager Butler-Kyser Oil & Fertilizer Co., Albertville, Ala.:

Considering the rapid spread of the boll-weevil, we cannot see a bright future for our industry, especially for the little mills, the tonnage of which, on account of the boll-weevil, will be reduced to such an extent that the fixed charges will absorb all of their profits, and, in fact, many of them will suffer great loss before they realize that it is impossible to remain in business as long as the destructive pest is in their midst. One of our mills is located in the heart of the boll-weevil district, and has not been operated during the past two years. This means about \$75,000 dormant, besides the large expense of maintaining day and night watchmen, taxes and insurance. It is natural for those located outside of the boll-weevil district to take an optimistic view of the situation, and hope against hope that the spread of this terrible pest will be checked before it reaches their respective districts, but as sure as the sun shines none of them will escape. They will tell you of the large yield of cotton in Texas, in spite of the boll-weevil, but they seem to overlook the fact that hundreds of thousands of acres of Texas lands now producing cotton were used as ranches only a few years ago, and that conditions in Texas are so different from the balance of the cotton-growing States, which enable the Texas farmer to overcome the ravages of the boll-weevil to some extent. We do not want to discourage anyone, but if the doubting Thomases will only investigate the results of the boll-weevil in Southern Louisiana and Mississippi they will realize what is confronting them, inasmuch as the lands of the two latter States are similar in many respects to the other cotton-growing States east of the Mississippi River. Many experts are warning the farmers to provide for the boll-weevil by embarking in the stock and grain business. They do not tell us satisfactorily how to grow cotton successfully in the boll-weevil district, for the simple reason they cannot. A 10-year-old boy knows we will have to resort to something else if we cannot grow cotton, therefore we do not consider the advice worth anything. Unless the foreign countries devote more attention to growing cotton, we predict that within a few years there will be a cotton famine, regardless of the more extensive use of commercial fertilizers and the modern improved methods of cultivating the plant. We are frank to say that oil mills with a large capacity located at terminal points with many railroads leading to them, with fertilizer factories or ice factories run in connection, will fare better than the mills located in the little country towns, as there will always be some cotton grown in every cotton-growing section, but not sufficient to keep the little mill running, and as soon as it closes down it will be a feeder to the large terminal mills. We are living up to our belief, and as evidence of same we are now increasing our Birmingham (Ala.) mill to 120 tons capacity. We are also increasing our fertilizer capacity, and in addition to this we expect to install a refinery suffi-

cient to utilize the oil produced at the Birmingham plant and our subsidiary mills. Except in isolated cases, we do not have much faith in the peanut industry. Peanuts will not thrive on all cotton lands.

LANDS WILL HOLD VALUE REGARDLESS OF WEEVIL.

Epes Cotton Oil Co., Epes, Ala.:

The cotton-oil industry outlook is not very good through this part of Alabama, and west of us in Mississippi. The boll-weevil is coming toward us fast. It is predicted it will be here inside of three years at the outside, possibly two years. If the boll-weevil comes oil mills must close down, as there is nothing to take the place of cottonseed. No peanuts raised in this locality. If peanuts were raised in a sufficient quantity our mill, for one, would crush it in the place of cottonseed if cottonseed became short. Little is said about the tariff throughout this section, and the people seem prosperous. Diversified farming has begun as a guard against the weevil. Lands are increasing in value, which will hold their own, regardless of the boll-weevil.

MAY BE FORCED TO USE PEANUTS ULTIMATELY.

G. L. Schmidt, proprietor Conchardee Oil, Grist Mill and Ginney, Lincoln, Ala.:

The past crushing season was conducted at a loss to most of the mills, principally on account of the decline in oil and yard products. We are not expecting the boll-weevil to interfere with the next crop. It will probably arrive, though, before we will get a second. Planters so far are making no preparation for the new order of things that will then be. There is nothing to prevent the profitable raising and crushing of peanuts for oil as a substitute to some extent for cotton oil. I think we will be forced to do this sooner or later. Our Southland will learn a valuable lesson by being forced to abandon the all-cotton idea. We will then probably pay more attention to dairying, stock-raising, etc. This new order of things will be forced upon us to our profit. We are, however, not yet ready to give up cotton, but will fight the boll-weevil with all the intelligence that we have. This will probably be done by reducing the acreage, say 50 per cent., and increasing the fertilizer. This will give more time for preparation and cultivation. Better seed will also be a part of the fighting plan. There is a very noticeable change for the better along the line of more intelligent farming, more improved tools, better buildings, etc. We have much to learn yet, however, and would welcome some of our brethren from the North to teach us some of their thrift and industry.

EFFECTS OF SHORT COTTON CROP ON THE CRUSH.

W. J. White, president and treasurer Uniontown Cotton Oil Co., Uniontown, Ala.:

The cotton crop in this section was very short last year, and the crush necessarily small. On account of extremely high prices paid for seed, the cotton-oil industry was not satisfactory. The boll-weevil has not appeared here yet, but will doubtless be here next year. The coming of the weevil will greatly reduce the cotton acreage, and consequently the supply of seed. No peanuts are planted here.

ARKANSAS.

INTELLIGENT CULTIVATION COUNTERACTING THE BOLL-WEEVIL.

L. Andrews, manager Helena Mill, Arkansas Cotton Oil Co., Helena, Ark.:

The cottonseed-oil industry has not been very promising for the past two years, on account of the seasons being unfavorable, and the yield of cotton was excessively short; furthermore, the prices paid for the raw seed have been exorbitant, giving the producer a very small margin of profit. This section of the cotton country has not been infested with the boll-weevil. However, they have been plentiful in the south and southwestern parts of the State, but the farmers in the infected boll-weevil sections of the State are becoming more intelligent each year as to how to handle the pest, and from reports the planters are producing about as much cotton per acre with the boll-weevil as they were prior to its existence. The planters are obtaining good production by early planting, cultivating properly, fertilizing and rushing the plant to maturity. The planters in this section do not grow peanuts, therefore we are unable to give any light upon the subject of peanuts being used as a substitute for cottonseed in an emergency. Should the boll-weevil enter into this section of the State, the diversity of crops would be a lesson to some of the planters about how to gain a better profit per acre than they are at present.

MARKED REDUCTION IN ANNUAL CRUSH.

G. W. Willey, president and manager City Oil Works, Helena, Ark.:

We haven't the boll-weevil in our immediate neighborhood yet, but are looking for him at any time. Our farmers are already diversifying. Less cotton is being planted each year. Our merchants have not sold one-fourth as much corn to the planters this year as they have previously. The City Oil Works used to crush from 10,000 to 11,000 tons of cottonseed each season. Last year we crushed something over 3000 tons. There are two other crude cottonseed mills in our town, and their crush has been reduced in about the same proportion. There has nothing been done with the peanut industry. Have not heard of a single planter experimenting.

GEORGIA.

SOUTH GEORGIA IS ALREADY DIVERSIFYING.

O. K. Jelks, manager Quitman Oil Co., Quitman, Ga.:

The oil-mill people of the South have just passed through a very unprofitable season. These conditions were not caused by the boll-weevil, but on account of the variability of prices received for our products. The business is more or less speculative, and beginning with high prices for the crude oil was an incentive to many mills to purchase largely all their seed on opening basis, and finally accepted prices for their products which left them with no profit. The thoughtful business man in our section is looking forward to the arrival of the boll-weevil. We believe that in sections of our country where the lands are owned by negroes and uneducated people that the weevil will have the most disastrous effect, but I am glad to state that in South Georgia the farmers are planting diversified crops, and are not depending altogether upon the cotton plant. There is no doubt in my mind that when the boll-weevil comes that the oil mills and owners of ginneries are going to suffer for a few years at least, but the farmers are discussing this matter at large, and if there is any way of overcoming the evil effect by planting early varieties of cotton and cultivating and fertilizing highly they are bound to succeed to a

certain extent. The peanut crop is already an important one in this section, and if necessary the farmers can easily change to this crop, and the oil mills can do likewise if this line of industry proves to be profitable.

OLEOMARGARINE TAX BURDENSOME.

E. W. Schaefer, manager Farmers' Cotton Oil & Fertilizer Co., Toccoa, Ga.:

The season just closed has proved to be the most unprofitable to oil mills in many years, not only to small companies, but to large as well, many of the large ones passing dividends and also the small ones. The reasons are many, but it looks like it will now bring up healthy and better conditions, as many are going to the root of the evil and will better conditions which threaten to further demoralize this most important and profitable industry. The boll-weevil has in many parts of Alabama I am informed, practically destroyed the supply of seed for oil mills and stopped the raising of cotton. The peanut industry, however, is now being agitated, and gives promise, but the imports of peanuts are so large, and the peanut as a nut to be eaten as "goober" is far too high to crush profitably, and the market for same has to be made. They would put the oil mills where they were 10 years ago with cottonseed. The boll-weevil does not affect us here, and we are doing now all that we can do to educate the farmer, and even farming ourselves to show the farmers the need and benefit to be derived from using 1000 to 1200 pounds of commercial fertilizer per acre and putting same in at planting time and two other applications. This not only makes the cotton mature earlier and makes more oil in the seed, but it will help keep off the boll-weevil, and now we must try to have the farmer educated and ready trained to fight the boll-weevil when the time and weevil arrives. The tax and tariff on oleomargarine is now the greatest blow on cottonseed and its product. In fact, it just takes the poor man's butter away from him; for it could be made and sold at about one-half the price of butter and every farmer that plants cotton would be benefited and every poor man, which far exceeds the dairy interests, which are able to so keep this tariff and tax on oleomargarine. All uses of cottonseed oil are as a substitute. It is no original oil at all, and many are now fighting to hold this tax on every poor man in the North and every man in the South. However, cottonseed oil will yet come to the front, and the South is now going to be the greatest and most profitable part of the great United States. Let all come South today and then tomorrow, and you see farms just beginning to be made. With cotton mills, oil mills and the Government all now using every effort to educate the farmers, they are not now putting in more acres, but less, and making two to three times more per acre. The cry now is three bales to the acre and 3000 pounds seed per acre, and in the next five years this will be realized in many places.

UNBUSINESS-LIKE METHODS IN SEED-BUYING.

Chas. S. Reid, Woodbury Oil Mills, Woodbury, Ga.:

In regard to the outlook for the coming season in the oil-mill business, it appears that a little more cotton will be made in this section this year than last, the crop prospect being fairly good up to date. Very unbusiness-like methods on the part of seed buyers and managers in this section during the past season made it a very unprofitable one, and, of course, we cannot tell whether such conditions will be repeated in the coming season. We are not

yet visited by the boll-weevil in this section, and hardly know what to predict in the event of its arrival. Peanuts would do well here, though the crop at present is planted so little as to scarcely be worth mentioning.

LOUISIANA.

FARMERS HAVE TURNED TO CANEGROWING.

Broussard Cotton Oil Co., Broussard, La.:

Owing to the boll-weevil invasion, our people have gone into sugar-cane culture, with all prospects of continuing as long as the weevil is with us. The soil is also well adapted to peanut culture, but the farmers are too well satisfied with the sugar-cane crop at present prices to venture extensively in any other crop. We see no immediate relief for the oil-mill industry with existing conditions.

SOYA BEANS MAY EXTEND THE CRUSHING SEASON.

J. E. Byram, manager Tensas Cotton Oil & Manufacturing Co., St. Joseph, La.:

The situation in this State for the crude mills crushing cottonseed is anything but bright, owing to boll-weevil depredations more so than anything else, though the competition of the mills with the usual scramble for seed at any and all prices, has had a great deal to do with the hard-luck stories generally reported by the mills. This competition is, however, to a certain extent caused by the weevils reducing the crop to such an extent that there is not enough seed to supply the big number of mills in the State to keep them running for any length of time. The cotton crop has decreased from something like 900,000 bales to less than 300,000, with the result that a number of the mills have closed down permanently, while a few have been sold and moved away. The situation is improving slowly, the farmers are learning more all the time how to grow cotton, and with the assistance rendered them by both the State and the United States, the damage done by the weevil is being considerably reduced. The cotton acreage is being increased gradually as knowledge increases, and with selected seed and cultural methods we think the crop will soon show a decided change for the better. The hilly sections of the State are well adapted to the raising of peanuts, and it is found to be a profitable business, but not profitable from an oil-mill standpoint, as the price for peanuts, compared with the price obtainable for the products, oil and cake, made from peanuts, does not justify a mill in crushing them. There are so many uses for peanuts, and such a demand for them for other purposes, that the price so far will not justify an oil mill using them as raw material. This is true in this State, anyway, but with increased production of peanuts on all our available lands we may within a few years have a sufficient supply to make a profitable business for an oil mill to increase their usual crush of cottonseed by a similar crush of peanuts, and not keep a valuable plant idle so many months in the year, as is the case of the oil-mill plants in this State today. We are also looking into the Soya bean industry, and find that our lands are about as productive of these beans as any lands on earth, and this will probably be a great crushing business within the next few years. These beans grow well here, and we find our lands much more suitable for Soya beans than for peanuts—Mississippi delta lands—and we think the future of the oil-mill business depends on inducing planters to raise enough Soya beans so that with amount of cottonseed raised will enable a mill to have a crushing season of not less than eight or ten months.

MISSISSIPPI.

HAS FOUND THE PEANUT A SPLENDID SUBSTITUTE.

C. U. Dahlgren, manager Gloster Oil Co., Gloster, Miss.:

If you will consult the official figures of the Government you will find that this county (Amite) in 1908 produced 25,889 bales of cotton. This year, that is just now coming to a close, will show that Amite county will produce possibly 3500 bales of cotton. And what is true of Amite county is true of Wilkinson, Adams and about 20 other counties in this State. This falling off in the production of cotton is due entirely to the boll-weevil, and in face of the fact that the farmers in these counties have tried each year to raise cotton as they did before the advent of this terrible pest. These efforts, with the constant failures, have brought about a greatly depressed financial condition and curtailment of business generally.

Last year I personally took it upon myself to make investigations relative to the advantages of raising peanuts as a substitute for cotton. The outcome was that the peanut was found to be not only a splendid substitute, but a magnificent adjunct to the farm as a money crop. My associates and myself began a public advocacy of the peanut, and we succeeded in having about 2500 acres of them planted in this section last year. The results were so good that it attracted the attention of other sections, and I was called upon to go to many points in the boll-weevil-stricken districts to tell them about the peanut. The result of these visits is that it is variously estimated that there will be anywhere from 100,000 to 150,000 acres planted in the white Spanish peanut in this State alone the coming season. And Louisiana, which last year had something like 30,000 acres under the crop, will be benefited by our efforts in this State, as she will increase her acreage the coming season to fully 100,000 acres.

That the peanut is a money crop is now no longer a doubt, and it will always be a fixture on the farms in this State and Louisiana. It is found that the hay that is made from the peanut vines is more nutritious than timothy, and also that the hay will more than pay all expenses incurred in making the crop. That it is profitable, note these figures, which are more than conservative:

Thirty bushels peanuts per acre, at 50 cents, \$15.

One ton of hay, \$10.

Total for crop, \$25.

Cost of making crop, including all expenses, \$10.

Net to the farmer per acre, \$15.

To prove that the above figures are ultra conservative, I would refer the reader to the United States Agricultural Department at Washington; or to say that not one single, solitary bushel of peanuts sold in this market this past season for less than \$1 per bushel, nor one single ton of the hay sold for less than \$12 per ton. And as further evidence, I would like to make contract, and will do so if offered by responsible parties, for every bushel of white Spanish peanuts that will be raised in Mississippi and Louisiana at the above price, 50 cents per bushel, and every ton of the hay that is made in the two States at the above price of \$10 per ton, and will furnish sufficient bond to carry out my end of the contract.

It has been found, through my own experiments, that the oil from the peanut is of a very much higher grade than cotton oil, and hence it is not at all a question of finding a market for the oil, but to get a sufficient supply of the raw material from which to make the oil. The market is ready and waiting. The cake, or meal,

from the peanut is just as stable as any other cake or meal of like character. This is known by all who know anything of the European market for this class of goods, or it can be verified by the Department of Commerce and Labor and other Government records. Whether the mills in this section will be crushing oil from the peanut next season is problematical, for I am of the opinion that very nearly all of the seed that is raised this season will be wanted; in fact, needed, by the new counties that are going to suffer with the boll-weevil, which is spreading, and which counties will be very glad to get the chance to plant the peanut, the most wonderful, the most remarkable, the most profitable product that was ever given to man to develop.

WHERE THE OIL INDUSTRY IS STILL NORMAL.

J. W. McRaven, manager De Soto Oil Co., Greenville, Miss.:

So far, this immediate section from which we draw our supply of seed has not been injuriously affected by the boll-weevil, though there are localities near us which have been to some extent affected by the pest. As far as we know, our planters are going ahead with their planting operations looking to the planting of the usual acreage in cotton, regardless of the threatened approach of the boll-weevil, with the hopes that the immunity which we have so far been the beneficiaries of may continue through this season, at least, and there is a hope for the fulfillment of a prediction made several years ago, that while the boll-weevil might, and doubtless would, go above that line, sometimes even to an injurious extent, still the pest would not become a permanent resident above the thirty-second parallel of north latitude, which line is about 75 miles south of us, and this prediction, we very much hope, may be fulfilled. Our operations have so far been so entirely unaffected by the boll-weevil as to preclude our considering the use of peanuts or any other substitute for cottonseed, and we are so far removed from the section in which such substitutes have been used as to be unable to give any information with regard thereto. In fact, there is nothing in our section now in connection with the manufacture of cottonseed oil which is not normal, we are very much pleased to say. With regard to the effect upon our product of tariff regulation, we are not sufficiently posted to make any statement.

DRIVEN TO DIVERSIFICATION BY THE WEEVIL.

W. M. Carter, secretary and treasurer Moorhead Oil Co., Moorhead, Miss.:

The boll-weevil is here in small numbers, but did practically no damage last year. The farmers are still figuring on raising cotton, and the oil mills are not trying to stop them. No one talks peanuts here. I suppose they figure they can't be raised on buckshot land, but they are beginning to plant plenty of corn and hay, and nearly every farmer is raising good hogs. Hay, corn and hogs are unusual here, but the boll-weevil scare has driven them to it. Crops are 30 days late, and no rain yet.

COTTON CROP THREE WEEKS LATE.

A. J. Martin, People's Cotton Oil & Fiber Co., North Carrollton, Miss.:

It is very difficult at this time to say anything of value regarding the outlook for the cotton-oil industry. Our experience does not justify an opinion on either the effect of the boll-weevil upon the seed supply or the use of peanuts by the oil mills. The weevil has not yet affected our territory, and we know nothing of the possibilities of peanut crushing. Crops are

three weeks late, having a stand on only about one-third of the acreage, owing to dry, cool weather.

FAIR CROPS OF COTTON WILL CONTINUE TO BE RAISED.

W. L. Patton, secretary and treasurer Senatobia Oil Co., Senatobia, Miss.:

The boll-weevil will in time doubtless cover the entire cotton belt. In combating same the planter must of necessity take up the most improved methods of cultivation and will probably plant a smaller individual acreage and give same the close, careful, personal attention of a garden. When once adopted, even though through such forced necessity, such methods of cultivation will remain and have a marked effect for good for all time, being steadily improved upon with each season. This will apply to the production of all other farm crops also. The nature of the boll-weevil being now much more generally and better known from the past experience of infested districts, there need be no panicky desertions of labor at its appearance, for it is now known that fair cotton crops can be grown even in infested districts. Such crops will continue to be grown. No district will ever desist entirely from planting cotton, but with more and more actual experience gained each year the manner of cultivating the plant will be so vastly superior to our present haphazard way that fair cotton crops will each year continue to be raised. Although with the weevil over the territory generally there can most probably be no increased production over the big crop records of past seasons, yet, even with such widespread extent of the pest, no season's crop will probably ever fall below 10,000,000 bales. With the certainty of a crop within such limits, the price received by the planter will be more nearly uniform and on a much more substantial basis than heretofore. With the removal of tariff burdens on cotton and cotton products, permitting same to stand on their own splendid merits, even with the "disaster," the prosperity of the cotton-growing sections will not be lessened. And, too, the weevil will by force hammer in the great economic truths of home production of necessities, of careful and intense cultivation, and of the raising of money crops other than cotton—the most prominently anticipated of which is peanuts—which crop will doubtless be largely increased but never so much so as to materially offset or replace the cotton-oil industry.

CANNOT FEEL PESSIMISTIC ABOUT OIL INDUSTRY.

E. M. Durham, president the Refugio Cotton Oil Co., Vicksburg, Miss.:

I beg to give you the following conditions of the cotton-oil-mill industry in the Mississippi Valley as far as I see them. The season just closed, as everybody knows, started with very high-priced products, especially oil, which was followed by very heavy declines during the season. As usual with such conditions, the oil mills have not had a very successful season from a profit point of view. The condition is aggravated from the fact that, owing to the boll-weevil ravages, a number of mills in the southern part of the valley were put out of business altogether, and those that stayed in had to reach out further for seed, thereby increasing an already very keen competition, and raising prices to a point where profit disappeared. I fear the coming season will be no improvement in this respect, as no doubt the boll-weevil will do a great deal of damage again, although so far it has not made its appearance. However, in view of last year's experience of high-priced seed and declining product market, no doubt the mills will be more conservative the coming

season. There has been a good deal of talk about crushing peanuts. Of course, to do so, the peanuts must be raised, and it is a matter of doubt as to how much acreage is being put in peanuts in the valley this season. Some people claim as high as 60,000 acres, but I think this is probably an exaggeration. A few mills have experimented on crushing peanuts, but I do not think any of them so far are prepared to take hold of the peanut at present, though I hear that one or two are taking steps looking to that end. The peanut proposition looks like a very good one, both from the planter's point of view and the crusher's point of view. Of course, no one expects it to supersede cotton in this section of the country, but it may be a very good substitute until the boll-weevil pest has gone, and even after that I think it can be raised very profitably complementary to cotton, and with the result to the crusher of giving him a seven or eight months' run instead of five or six, thus keeping his plant profitably employed. However, I really don't think that much can be done along this line this year. The demand for cottonseed products is undoubtedly increasing so fast every year that one cannot possibly feel pessimistic about the cotton-oil industry, even if present conditions are not very favorable.

NORTH CAROLINA.

GREAT GAIN IN INCREASED USE OF FERTILIZERS.

E. W. Thompson, district manager the Southern Cotton Oil Co., Charlotte, N. C.:

There is no boll-weevil in this section of the country, nor does there seem to be any other obstacle in the way of producing a large supply of cotton and seed. The use of commercial fertilizers is growing rapidly from year to year, and this is increasing the yields of cotton per acre, and is making the culture of cotton more and more profitable every year. Quite a number of farm demonstrations have been made in North Carolina, which plainly show that the use of as much as 1000 pounds commercial fertilizers per acre (instead of 300, which has been the average heretofore) will produce enough additional cotton and cottonseed to more than pay for the surplus fertilizer. During the past season the usual amount of cottonseed has been crushed in this vicinity, but it is generally considered that there has been a loss to the oil mills in every ton crushed. A prominent trade paper has estimated that the losses to the cotton-oil mills of the United States have during the past season aggregated \$12,000,000. This, it seems, was caused mostly by undue competition for the raw material. During the past season the price of cottonseed delivered to the oil mills has been higher than ever before, perhaps \$5 per ton higher than the value of the products would justify. There is every reason to believe that the cotton-oil industry is a permanent one, and that another season will demonstrate to all of the mills the necessity for a less strenuous struggle for seed. There is no reason why a good manufacturing profit should not accrue during next season. There has been a great development of cottonseed by-products in this part of the country. Formerly the cottonseed meal was used almost entirely as a fertilizer. Now it is being demonstrated that there is a much greater value in meal when used as a cattle feed. Experiment stations all over the South have shown that there is no more profitable feed for cattle than a mixture of cottonseed meal and hulls, and they have also demonstrated to a certainty that the droppings from cattle fed on these products contain practically all of the fertilizing elements which were in the original ingredients. Thus it has been determined beyond any question that the intelligent cot-

ton farmer can, by exchanging his cottonseed for meal and hulls, feed all the cattle he wants and get the full value of the meal and hulls in the milk and beef, and then get another full value out of the fertilizer.

WILL HAVE TO CONTENT WITH THE BOLL-WEEVIL.

N. B. Hales, manager the Pine Level Oil Mills Co., Pine Level, N. C.:

While we are not having the trouble with the boll-weevil that our neighbors farther south are having, we haven't given much thought to peanuts as a substitute for cottonseed. We realize that sooner or later we will have the boll-weevil to contend with. Still, we are not taking any steps to meet the evil. We think that the peanut would meet the requirements of the oil mills as a substitute for cottonseed, but think the greatest problem would be to induce the farmers to plant peanuts instead of cotton, knowing the sure profits in raising cotton and the uncertain price that they might obtain from the peanuts if raised in large quantities.

MILL CAPACITY GREATER THAN SEED SUPPLY.

Imperial Cotton Oil Co., Statesville, N. C.:

We can only speak for this immediate territory. As to seed supply, it promises to be better the coming season than last year, but there will be more mills in this territory the coming season, which will more than absorb the additional seed available for crushing. The only cloud on the horizon, as far as we can see, is the probability of keen competition in the purchase of seed. We are not affected by the boll-weevil, and not likely to be for at least some years to come. Peanuts are not grown in this section, and it is doubtful if the mills could afford to pay a price for them which would interest the farmers in trying to grow them in quantities. We believe that the tax on colored artificial butter, which is composed largely of cotton oil, is most unjust, and ought to be removed, as it is a piece of class legislation, pure and simple.

SOUTH CAROLINA.

OIL MILLS STUDYING QUESTION OF SUBSTITUTES.

B. F. Taylor, secretary and treasurer South Carolina Cottonseed Crushers' Association, Columbia, S. C.:

Replying to yours of May 15, will say that the outlook for the cotton-oil industry, from the standpoint of raw material, is not a pleasant one. In the first place, there are more mills in operation than are justified by the supply of cottonseed at present available, which necessarily makes competition for the raw material very fierce. The steady advance of the boll-weevil adds nothing but gloom to the present situation. It is estimated upon good authority that within four years the boll-weevil will have crossed the State of Georgia and will have entered South Carolina territory. Apparently nothing will be done to prevent the invasion, as the only practical way would be to absolutely prohibit by law the raising of cotton in a territory some 50 miles wide on the border of the State of Georgia; or, if that is not done, then on the border of the State of South Carolina. It cannot well be seen how it is possible to accomplish this.

It is, therefore, very necessary that some oil-bearing product be found on which the cottonseed-oil mills can run in the absence of an adequate supply of cottonseed. A great many of the mills have given this matter careful consideration, and while there are a number of seeds and products that could be utilized by the mills, none of us so far have been able to find

any product that we can work profitably. For instance, it is known that copra has been tried in Mississippi, and peanuts have frequently been worked in the oil mills of the South, and the writer has personally worked castor beans, but none of these products is obtainable at such prices as, after manufacture and sale of products, to leave a profit for the mills. We have tried to import the Soya bean, but the apparently foolish tariff placed upon Soya beans prevents our being able to import them so as to work them at a profit. Certainly it appears to us that the raw material should come into this country free of duty, and that if a tariff is to be imposed that it ought to be imposed on the manufactured products. At the present time there is a tariff on the Soya beans, but the oil comes into this country free of duty, which permits the foreign mills who have worked the beans, or cottonseed, or any other oil-bearing product, to send their manufactured products into this country free of duty to compete with our own home products, and at the same time puts a tariff on the importing of the raw material.

It is the custom in European countries to so arrange their plants that they can work any kind of oil-bearing seed, which puts them in position to run practically all the year round. Therefore, they are not dependent upon any particular oil-bearing seed or product. The time must come when our oil mills are to be equipped in a similar manner, and if the boll-weevil is going to further curtail the amount of seed available for distribution amongst the mills, it behooves those engaged in the business to take the necessary steps to protect themselves, and I would consider that the first step would be a careful consideration of the tariff as it bears upon this question.

Take the State of South Carolina alone. My private statistics indicate that during the year 1909-10, out of a crop of 490,000 tons, as estimated by the Government, the farmers marketed in South Carolina 386,257 tons of cottonseed. There are within the borders of this State 111 oil mills, and on the borders of the State 20 mills located in Georgia and North Carolina, which take a large tonnage of seed out of the State. The average tonnage, therefore, will be less than 3000 tons to the mill, and if the capacity of these mills is considered it would be found that the tonnage is very small, and apparently so small as scarcely to provide any profit for quite a number of them. If the cotton crop is decreased by reason of the boll-weevil, or for any other cause, in this particular territory, the result will be absolutely disastrous to the business, unless some other product is found on which the mills can make a crush.

MILLS MADE NO MONEY DURING THE PAST SEASON.

W. M. Webster, president and treasurer the Cowpens Cotton Oil Co., Cowpens, S. C.:

We have had no boll-weevil in this territory as yet, and hope that it will not ever reach us. The oil mills, as a rule, haven't made any money this season. Seed was high on account of the sharp competition. We raise no peanuts in this part of the country, and, of course, will have no effect on the seed industry. We hope for better results for another season.

MILLS MULTIPLYING FASTER THAN SEED.

J. N. Lipscomb, treasurer and general manager Victor Cotton Oil Co., Gaffney, S. C.:

The outlook for the cotton-oil industry from the manufacturer's point of view is not very bright for the future. Mills are multiplying with greater rapidity than the

increase in the supply of seed. Competition grows keener every year. If conditions do not change we cannot see anything but disaster in the future to the oil-mill business. Your suggestion as to the possibilities in the crushing of peanuts is a matter that the mills of this section of our State have given very little thought to. In fact, we do not think that we would be able to do much in that line, as this is not a very good section for the raising of peanuts. We think anything of that nature would be a great benefit to the smaller mills as a helper, where it can be done along practical lines. We are not very much disturbed yet over the boll-weevil question in this part of the country.

PEANUTS AS SUBSIDIARY MATERIAL.

H. S. Simpson, president Glenn Springs Railroad Co., Glenn Springs, S. C.:

The boll-weevil has not struck our territory yet, and I do not know what it will do for cottonseed-oil mills when it comes. Neither have we had any experience in the crushing of peanuts. It seems to me, however, that the crushing of peanuts would be a good subsidiary means of utilizing oil-mill plants when not used in crushing cottonseed.

TEXAS.

MUCH COTTON TO BE REPLANTED THIS YEAR.

Wm. Perry, manager Brenham Compress, Oil & Manufacturing Co., Brenham, Tex.:

Our mill has been closed down for the past few months, but we have now commenced running, and will only run a few days to work up a few seed in order to make a few hulls and meal to supply our local trade. We did not suffer much from the boll-weevil the past season, owing to it being very dry, but we have had a great deal of rain lately, and we expect the weevil to put in a lot of work this year. However, nobody can tell anything about the cotton crop for the next 30 or 40 days. There is a great deal of cotton to be replanted, and no one can tell anything about the crop at this time of the season.

TARIFFS AND TAXES DRAWBACKS FOR THE TIME.

F. A. Blain, general manager Fort Worth Cotton Oil Co., Fort Worth, Tex.:

Owing to the extremely dry weather the past two years, the boll-weevil has done very little damage in Texas, and we do not anticipate very much damage this season from it. The outlook for the coming season is good, so far as the condition of the crop is concerned. Cotton is up to a good stand in all parts of the State, and is doing well, with the exception of a few spots that are too dry, and a few others that are too wet. The production of peanuts is so limited in this State that it will have no effect upon the cottonseed industry, and as long as the present high price for cotton prevails, we are sure that the acreage and production will increase, and will not be interfered with by the cultivation of peanuts. The duties in foreign countries on cottonseed oil and the tax on oleomargarine have no doubt restricted the use of cottonseed oil to a large extent, and this, in part, accounts for the low price prevailing. However, the large increase in the consumption of cottonseed oil and other products at home is very encouraging, and the day is not far distant when all cottonseed products will be consumed in this country.

PEANUT CRUSHING INDUSTRY MAY EXPAND.

J. D. Kendrick, manager Knox City Cotton-Oil Mill, Knox City, Tex.:

We are north of the boll-weevil district,

and not bothered with this pest, but are afraid of the boll-worm and drought. We have the boll-worm when we have too much rain, which is not very often. At present we are suffering from lack of moisture, but a large majority of the cotton is planted, and there is a good stand, but suffering from dry weather. Rain in 10 days will save it, and with sufficient fall during the growing season, prospects are still favorable for average crop. We have not experimented with crushing peanuts, but think the industry will expand and this become a paying crop to the farmer and a valuable feed for hogs.

MISFORTUNES IN PLANTING COTTON.

B. C. Newberry, manager the Lyons Oil Mill Co., Lyons, Tex.:

Our prospects look very gloomy in this immediate part of the country now. We have had entirely too much rain. Very few of our farmers succeeded in getting a stand from first planting. Some of them have planted as much as four times, and still have no stand. Quite a good many of the farmers are not done planting yet. They haven't had a chance to get in their fields for six weeks. The boll-weevil can be found numerous where the cotton is anything like large enough. There are no peanuts raised around here. I suppose that they could be raised here. Our prospects for corn are very poor at this time also. It is drowned out, is very small, and looks yellow and sick.

FACILITIES IN TEXAS FOR RAISING PEANUTS.

G. A. Bungarten, superintendent-manager Schulenburg Oil Mill, Schulenburg, Tex.:

Here in Southwest Texas we have had the boll-weevil for a good many years, and our seed supply has been considerably cut short by reason of the weevil. Previous to the boll-weevil this part of Texas would make several crops of cotton, by reason of the mild climate. This has not been the case since the boll-weevil. We cannot figure very much on a fall crop, much less a winter crop. We are satisfied if we get a summer crop of one-quarter to one-half bale to the acre. The truck and dairy business has increased since the boll-weevil, and the farmers are not complaining of the change, as cotton is not now their only source to rely upon. This, of course, has cut down our seed supply about one-half in this vicinity to what it was previous to the boll-weevil. Peanuts are grown here only in a limited way for feed and other purposes, but not in a commercial way, but no doubt could be raised successfully for milling purposes. It is our thin, sandy soil which produces the best peanuts here. The soil needs plenty of lime to produce shells. This can be cheaply supplied close by, as Texas has plenty of rock for lime and on the coast abundance of oyster shells. The dairies are using large quantities of meal here, and my exports have been getting less each year. I believe the South will eventually consume all of its meal. I also make a new roller process (Allison) cottonseed flour for bread and cakes, etc., which eliminates all hulls, etc., and the demand for same is increasing daily. Oil for cooking purposes is also used in large quantities, and the demand is increasing daily.

Cottonseed Crushers in New York.

Among the speakers at the annual meeting next week in New York of the Interstate Cottonseed Crushers' Association will be Mayor Gaynor, President Henry R. Towne of the Manufacturers' Association of New York, Dr. H. W. Wiley of Washington, D. C.; Judge Henry C. Hammond of Georgia and Julien I. Brode, formerly of the Department of Commerce and

Labor. President Taft and William G. McAdoo are expected to be the speakers at the banquet. A number of entertainments have been provided for the visitors.

AN ALABAMA LAND PLAN.

To Settle Northern and Western Farmers in the State.

[Special Cor. Manufacturers Record.]

Livingston, Ala., May 22

The Sumter Land Co. has been organized here with a capital stock of \$75,000, and with W. J. McCain, president; T. L. Smith, vice-president and secretary, and L. B. Spratt, treasurer. The company has purchased 200 acres of land east of Livingston, within 200 yards of the corporate limits, and will subdivide into town lots. Adjoining this are several hundred acres of Norfolk fine sandy loam land. The company proposes to locate industrious, thrifty people from the Middle and Northern States on this town property, and rent or lease or sell them the adjoining farm property to be used in growing strawberries, beans, English peas, tomatoes, okra, cabbage, potatoes, etc., for the Northern markets. Being located on the Queen & Crescent Route, they will have the best advantages in the way of transportation. Livingston is the county-seat of Sumter county, a school town, having a public graded school and the Alabama Normal College, a State institution, with attendance of 600 students. It has been a health resort for many years.

The land company has also purchased 1180 acres of the best improved alfalfa land north of Livingston, in the lime land portion of the county, and will offer this to immigrants from the Middle and Northern States in small tracts to suit the purchasers, and on very reasonable terms, the object being to start the location of desirable white immigrants on these lands. This property is all in cultivation, and paying a good rental now. There are over 100 acres of alfalfa on these lands, with good alfalfa hay barns, etc. Some of the fields in alfalfa paid over \$40 net per acre last year without any fertilizer or help in any way whatever. The Sumter Land Co. proposes to buy as much of the lime lands of Alabama as it can secure in large tracts and divide them into small tracts to suit purchasers. It believes it is inaugurating a method that will result in great good to this section by locating a large number of good people who are coming this way from the States to the North.

W. J. MCCAIN.

Water for Oklahoma Cities.

[Special Cor. Manufacturers Record.] Oklahoma City, Okla., May 26.

The City Commission of Tulsa has entered into a contract with D. C. Maury, a hydraulic engineer of Peoria, Ill., to make surveys and estimates looking to an increase in the city's water supply. It is proposed that either the Arkansas River water shall be used in a different manner or that a new source of supply from wells shall be found on the other side of the river.

Work has begun at Stilwell, Adair county, on the installation of a new and larger water system. Water is to be obtained from springs on the farm of S. J. Starr. These springs have an abundance of pure, soft water the year round. Negotiations are on with the Kansas City Southern Railway Co. whereby the company may erect an electric power-house near the spring.

Plans are under way for extending the water system at El Reno. Mayor P. P. Duffy, an ardent admirer of pure water, expects during his administration to give the city a system of water that will be adequate to the needs of the city for many years.

W. F. KERR.

Valuable Water-Powers on Clinchfield Route.

[Special Correspondence Manufacturers Record.]

Johnson City, Tenn., May 27.

In carrying out the work of having all of the resources of the country tributary to its line investigated by competent specialists, the Carolina, Clinchfield & Ohio Railway has set an example which many others might follow. From time to time the MANUFACTURERS RECORD has published facts covering the investigations made by the Clinchfield of the mineral resources of the country along its line, the cement-making possibilities, the apple-growing advantages, and other industries, both in manufacturing and agricultural development. In the furtherance of this work the Clinchfield engaged Mr. E. McD. Moore, hydraulic engineer, to make a careful and detailed investigation of the water-powers available for development on the rivers in its territory. These investigations have been completed along the Toe and Nolichucky rivers, and the work will be continued until all of the

chucky, where it breaks through the Unaka Mountains at the Tennessee-North Carolina State line, having at that point a drainage area of 640 square miles. The Clinchfield follows it for 40 miles above and 10 miles below the State line. In this distance the river flows almost entirely through granite and metamorphic rock and falls more than 900 feet, affording more than 20 sites for water-power developments, varying in head from 15 to 150 feet and developing from 800 to 10,000 horse-power 12 hours per day.

"These developments show a low cost of construction. Being adjacent to the Clinchfield Railroad, material and machinery can be delivered at the sites with no expense for hauling, and construction materials, such as stone, gravel and sand, are available along the river at all points in unlimited quantities.

"The river has, throughout its course, a bed of solid rock, and in all cases sites

Ocoee River Electric Plant.

DEVELOPING 32,000 HORSE-POWER IN THE VICINITY OF CLEVELAND.

[Special Correspondence Manufacturers Record.]

Cleveland, Tenn., May 29.

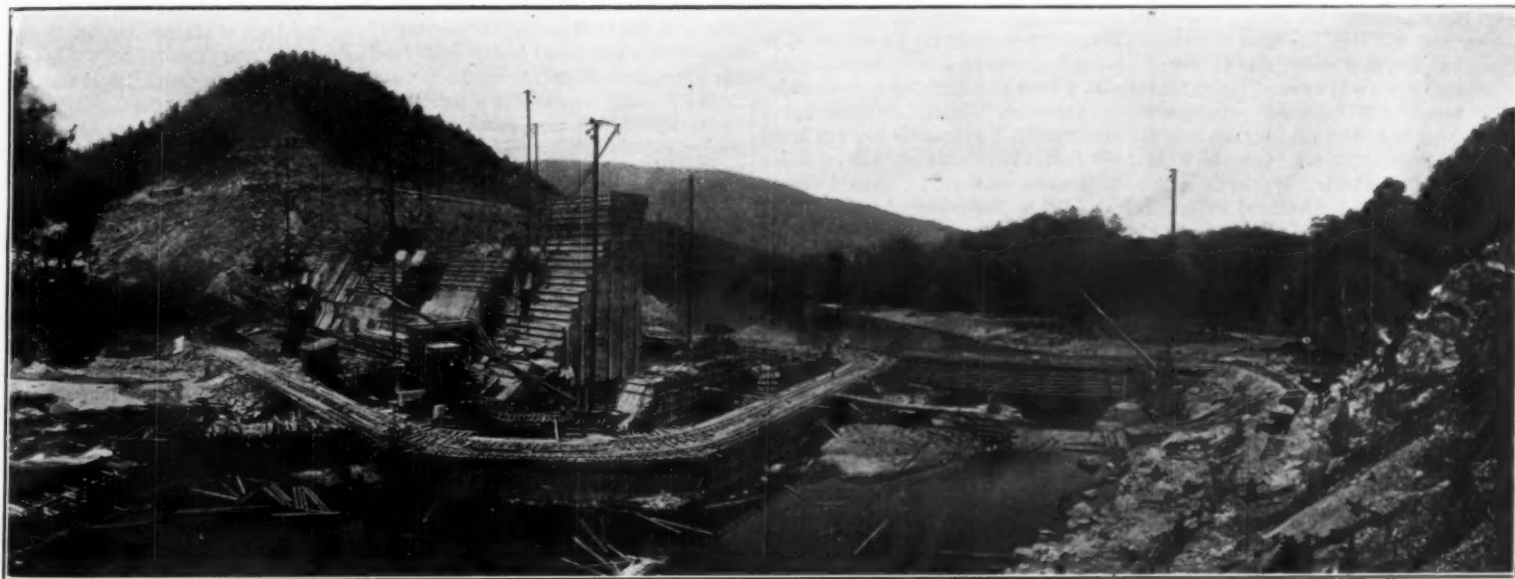
One of the most interesting hydro-electric developments under way in the South is that of the Eastern Tennessee Power Co. on the Ocoee River, about 16 miles from here.

Actual construction work was begun last summer and has been vigorously pushed ever since, and by January, 1912, it is fully expected that electric power will be delivered from this development to Cleveland, Chattanooga, Knoxville and other intermediate cities. The initial installation of machinery will provide for 21,600 horse-power, with available space for another unit of 10,000 horse-power, making the total horse-power available from this development about 32,000. The company also controls a site about nine miles to the east, where at some later date a second development of 60,000 horse-power will be constructed.

The possibilities of the Ocoee River

transmitted. Already a number of contracts have been made, and power under these contracts will be delivered from the steam auxiliary plants pending the completion of the water-power plant.

All construction work in the initial development is in the hands of the Ocoee Construction Co., which is under the direct supervision of J. G. White & Co. The work involves 160,000 cubic yards of concrete, 550,000 bags of Portland cement, 40,000 cubic yards of earth excavation and 20,000 cubic yards of rock excavation. The weight of concrete in the dam will be about 52,000,000 pounds, the weight of structural steel 500,000 pounds, and the total weight of the entire structure 54,200,000 pounds. So far the dam is about 40 per cent. completed and about 70,000 cubic yards of concrete has been placed, and this is being added to at the rate of about 1000 cubic yards a day. The dam will be 8000 feet long and 110 feet high,



EASTERN TENNESSEE POWER CO.'S HYDRO-ELECTRIC PLANT IN COURSE OF CONSTRUCTION ON OCOEE RIVER.

rivers have been investigated and reported upon. In discussing his work Mr. Moore gives to the MANUFACTURERS RECORD the following condensed statement:

"There are three striking features regarding the water-powers along the Clinchfield Railroad:

"First. The Clinchfield passes through that mountain section of East Tennessee and West North Carolina which has the heaviest annual rainfall in the United States.

"Second. The Clinchfield follows or crosses the Clinch, North Holston, South Holston, Nolichucky, Toe, Catawba, Broad, Second Broad and Pacolet rivers, all of which, except the first two, rise in this area of maximum rainfall, and several of which are already known for the great water-power developments along their courses.

"Third. These rivers drain the highest mountain section east of the Rockies, and fall from 1000 to 2000 feet in that part of their course adjacent to the Clinchfield.

"These three natural advantages are of prime importance for economical water-power development, and their results on the Toe-Nolichucky River will be considered in detail.

The Toe River rises on the western slope of the Blue Ridge Mountains, receives all the drainage from the Black Mountains, including Mt. Mitchell, and flows west until it becomes the Noli-

for dams have been selected where the bed-rock shows from bank to bank.

Compared with other rivers, these dams are shorter for the amount of power developed by them, because, first, the river has not yet cut bottoms along its course, steep hills rise on both sides, and the dam requires no wing walls to close the bottoms; and, second, because the width of a river channel is, generally speaking, sized by the flood flow of the river and the amount of power that may be developed at any given head by the low-water flow. Here we have a stream whose flood flow is approximately the same as that of other streams of the same drainage area, but whose low-water flow is twice that of other streams of the equal drainage area.

"Therefore, on the Toe-Nolichucky River approximately twice as much power is rendered available by a dam of approximately equal length than on the nominal river with equal drainage area above the site."

Mr. Moore's investigations have been made in a very thorough manner, and detailed data and blueprints are available covering the water-power sites along the Toe and Nolichucky rivers. The industrial department of the Clinchfield, which is located in this city, will be very glad to furnish these details to those who may be interested in taking advantage of the opportunities offered.

have been known for some time, but no definite action toward actual accomplishment was undertaken until J. W. Adams of Chattanooga acquired the rights only a few years ago. As a result of Mr. Adams' efforts, he secured the backing of E. W. Clark & Co., bankers, of Philadelphia, and operators of a number of public-utility plants in various parts of the country; Drexel & Co., bankers, Philadelphia; Hadenpyle, Wallbridge & Co., bankers, New York, together with J. G. White & Co., New York, one of the foremost engineering and constructing firms in the country.

E. W. Clark & Co., under the name of the Chattanooga Railway & Light Co., operate the street-railway lines and lighting systems of Chattanooga, and this company's steam-power plant in that city will be used as an auxiliary to the water-power plant. A new company will be formed in Chattanooga under the name of East Tennessee Electric Light & Power Co. to act as distributors of power in that city. The Eastern Tennessee Power Co. has also taken over the electric-light plant at Cleveland, and additions to this plant are now being made to give it a capacity of 1000 horse-power, and will be used as an auxiliary to the water-power plant for Cleveland and vicinity. Thus it will be seen that the company is well organized to handle thoroughly the supplying of power in the various cities to which it will be

and is said to be the highest dam so far constructed in the South.

The dam will back up the water and form a lake about eight miles long and more than 2000 acres in area, thus giving ample storage and providing a practically constant working head at the dam. On Baker Creek at the head of this lake the power-house of the second development will be located. This second lake will be formed by building the dam across a narrow gorge and creating another lake of about 2000 acres. Water from this lake will be carried by means of a tunnel through the Big Frog Mountain, a flume and penstock, to the power-house six miles below, where a fall of 500 feet will be utilized, giving about 60,000 horse-power. As a result of the ultimate completion of the company's undertakings all of that part of the river for 16 miles from Ducktown and to Parkville will be utilized for power purposes.

The accompanying illustration gives a very good idea of the construction work as it is now going on. When this was started there was nothing at the site of the work but a few buildings, and it was necessary to construct commissaries, boarding-houses, dining-rooms, office buildings, engineers' houses, bunkhouses and water supply and sewerage systems in order to provide for the hundreds of men who are at work on the undertaking. To get supplies and equipment to the work

it was necessary to build six miles of railroad from Ocoee Station, on the Louisville & Nashville Railroad, to Parkville. This road, including surveys, obtaining of rights of way, grading, hauling and laying the rails, was completed in about 70 days. Upon completion of the dam there is considerable talk of extending this road to Cleveland, thus giving that city an additional outlet for business.

All of the electrical equipment for the plant will be furnished by the Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa., and the water-wheels by S. Morgan Smith Company, York, Pa. Royal brand of Portland cement, furnished by the Dixie Portland Cement Co., Chattanooga, was used, there being about 500,000 bags altogether.

The offices of the Eastern Tennessee Power Co. are located at Cleveland. The general officers are: President, C. M. Clark; secretary and treasurer, G. L. Estabrook; general superintendent, J. A. Cunningham.

The city of Cleveland is laying plans to take the fullest advantage of the opportunities that will be offered by the completion of this hydro-electric development for extensive industrial and commercial expansion. Industrially and commercially, the city has been a steadily growing one, and contains a number of substantial and well-operated plants, banking houses and commercial enterprises. Cleveland is located on the main line of the Southern Railroad, between Knoxville and Chattanooga. It is in the center of one of the best agricultural sections in Eastern Tennessee. Dairying, poultry raising, fruit and berry raising are the most profitable lines, and there are approximately 1000 dairying cows in the county in actual dairying work. There are more than 100,000 bearing peach trees in the county, and this year more than 250 acres were set out in strawberries, which promises to be a future source of large revenue.

The population of Cleveland is about 7000, which is an increase of 43 per cent. in the last 10 years. The city has three established banks, with resources aggregating \$1,550,924, and a new bank just organized with a capital stock of \$100,000. These institutions have always been liberal to manufacturers, farmers and business men, and have been important factors in the growth of the city.

One of the most interesting industries in Cleveland is that of the Cleveland Woolen Mills, which manufactures men's and boys' clothing from the raw material to the completed product, which is sold direct to the retail trade in all parts of the country by the mill's own corps of 24 salesmen. The buildings of the plant are quite imposing in size and are modernly equipped throughout. They contain 18 sets of 60-inch cards, 6776 spindles, 88 broad looms, 352 sewing machines, with full complement of preparing, dyeing and finishing machines, machine shop and box-manufacturing plant, and a total of 860 hands are employed. The head of this substantial enterprise is Mr. George L. Hardwick, who is also president of the Cleveland Commercial Club, and he is putting the same vigor in the Commercial Club that has made his mill such a substantial one.

Other interesting industries in Cleveland include one of the largest chair-manufacturing plants in the South, employing 400 people; a coffin and casket factory, with sales in excess of \$100,000; the Cleveland Stove Works, manufacturing ranges, cook stoves, heating stoves and hollow ware, with an annual business of \$200,000; two hosiery mills, with 300 employees; two ice and cold-storage plants,

two large roller mills, five woodworking plants, machine shop, wagon and buggy works, a large co-operative creamery and a number of other smaller industries of a varied character.

There has recently been constructed in Cleveland a new \$50,000 postoffice, a new \$25,000 passenger station and modern municipal water-works, and on every hand can be seen evidences of a determination to take the fullest advantage of the opportunities which now lie before it. The leading business men in the city have become active in the Cleveland Commercial Club, and as a result free building sites are being offered to manufacturers desiring to locate their factories here. Those interested in securing information as to the opportunities available, especially by reason of the new water-power development, can obtain this from D. W. Duncan, secretary of the Commercial Club.

WM. H. STONE.

PORT BOLIVAR FACILITIES.

Possible Site for Iron and Steel Industry.

[Special Cor. Manufacturers Record.]

Port Bolivar, Tex., May 25.

Port Bolivar, a subport, lies on a high peninsula, and is the terminus of the East Texas lines of the Santa Fe system. Here the railway company has extensive terminals, a large pier 1200x360 feet, on which is a lumber shed 800x150 feet, now full of export stuff. To its south is a slip 1200x300 feet, while to its north is a timber basin under construction. At the present there can be handled about 6,000,000 feet of lumber per month, while additional facilities under way will increase this by about four times. With extensive forests and numerous mills immediately tributary and a very advantageous rate there can be no reason why the lumber business, both foreign and coastwise, already extensive, should not place Port Bolivar among the leading ports of the Gulf in this respect.

The early completion of the Port Bolivar Iron Ore Railway in Northeast Texas will give the port an immense volume of iron ore within the next very few months. This will go to Eastern blast furnaces, and it is planned to handle return cargoes of coal, thus securing a low rate for it and permitting the establishment of coking ovens here with a view to the iron and steel industry at this point. It is claimed that all the material necessary to make a ton of pig-iron can be assembled at this point at a cost of \$2.50 per ton less than at any point in the East. The advantage of having the products enjoying the low tidewater rates and at so eligible a point of distribution as Galveston Harbor, and at the same time saving freights now paid on finished material from the East, leaves little to be said regarding the outlook for the development of the manufacture of iron and steel at this point. Incidental to this is the handling of coal, both jobbing and to ships. At the present the rates make the price of bunker coal higher than the normal. It is expected that this difficulty will be obviated and ships coaled at a moderate cost.

Port Bolivar is the nearest point on the harbor to the high seas, being but 3000 feet from the main channel. Its channel is now 25 feet deep and 150 feet wide, with a small turning-basin. Work is now in progress widening the channel to 200 feet and the turning-basin to 1000 feet square, deepening all to 30 feet. This will be finished in a short time, when any ship coming to the harbor can be berthed.

The especial features of Port Bolivar in addition, making it attractive to the manufacturer and distributor in general, is that sites and facilities are readily obtainable at low cost, and the fact of being on Galveston Harbor makes shipment in part

cargoes at favorable rates an advantage, while rail shipments can be made as readily as from Galveston and at favorable rates.

CHARLES E. TRIMBLE.

COLD-STORAGE LEGISLATION.

Position of the American Association of Refrigeration.

The American Association of Refrigeration, representing the affiliated refrigeration industries, at its recent convention in Chicago, opposed the regulation of cold storage proposed in bills now before Congress and expressed conviction of the important economic position of the cold-storage industry. The association is against the enactment of hasty restrictive measures, and its ideas were embodied in the following:

"We favor the enactment of such national laws as will provide for the inspection of all foods before their admission to storage as well as at other proper times and places from the period of production to the time of their sale for consumption, and will likewise provide for their condemnation whenever and wherever they may be found unfit for human food.

"We favor a provision for giving information to the consumer concerning all foods offered for sale, and we favor publicity as to the total quantity of perishable foods in both public and private cold-storage warehouses at stated periods.

"We consider the fixing of a time limit during which goods may be kept in cold storage unnecessary, because such a time limit would give no protection to the consumer in addition to the protection afforded him by the proposed inspection of food products.

"If some time limit be required by the National or State authorities, such limit should not be less than 12 months, or from one season of flush production to the next season, with the privilege of extension of this time should the condition of the goods upon inspection warrant such extension.

"Owing to the lack of complete scientific and practical information on the subject of cold storage and its relation to the problem of food conservation and distribution, we favor the creation of a National commission, which shall be appointed by the President of the United States, to investigate the production, packing, shipment, storage and the sale of perishable foods, as related to the public health and the effect upon prices of such perishable products, and as the result of such investigations to recommend such legislation as the facts will warrant, and which shall be for the benefit of the public."

PLEASED WITH TAMPA.

A Government Official Impressed by the Florida City.

Mayor's Office,

Tampa, Fla., May 28.

Editor Manufacturers Record:

I am sending you under separate cover today a copy of the issue of my paper, the *Tampa Daily Times*, containing a report based on the findings of an official of the United States Census Bureau, who has just completed an investigation of the financial status of the city. The report appears to me such an exceptionally complimentary one that I hope you will feel justified in making reference to it in the columns of your excellent publication.

We are preparing to issue bonds to the amount of \$150,000 for the purpose of erecting a modern bridge at the Lafayette street crossing of the Hillsborough River, and also hope within two months to float a bond issue of \$1,000,000 or \$1,500,000 for the erection of a city hall, purchasing and beautifying additional city parks, extension of our paving and sewerage systems and other public improvements. We also

have under contemplation the purchase of the water-works plant, which is privately owned, by issuing bonds against the plant.

Giving this complimentary report publicity in the *MANUFACTURERS RECORD* will be of value to us in attracting the favorable notice of the financial interests of the country. Yours very respectfully,

D. B. McKAY,

Mayor of Tampa.

The report to which Mayor McKay refers deals with figures compiled by Harry J. Overman, special agent of the Census Bureau. For a period of the year ended May 30, 1910, Mr. Overman found properties of the municipality that yield no revenue valued at \$2,356,362, including \$2,000,000 for lands and buildings. He listed \$1,120,828 of public improvements, including street paving, \$829,001; sewers, \$220,067, and bridges, \$63,749. There was an increase in the assessed value of property from \$19,371,435 in 1909 to more than \$25,000,000 in 1910, the assessed value representing about 60 per cent. of actual value. There were expended upon schools \$173,000 during 12 months. Mr. Overman praised the city officials for the systems used in the several departments, and said:

"The people are the best I have ever met; your push and enterprise is astounding, and I am of the opinion that Tampa has a great future ahead of her." As to the climatic conditions at this time of the year, he was agreeably surprised, thinking before coming here that he would find the weather much warmer. He will return to Tampa on his next vacation, and will probably invest in property.

Cement Plant Nearing Completion.

Construction work is steadily advancing at the new Portland cement works being constructed near Union Bridge, Md., by the Tidewater Portland Cement Co. All of the buildings have been completed, and most of the machinery and equipment is in place, the main work now being confined to the assembling and connecting together of the various pieces of machinery, and it is fully expected that all of this will be completed and the plant in operation by the first of August. When working to its full capacity the plant will have an output of 3000 barrels of Portland cement daily. White Portland cement to the extent of 200,000 barrels annually will also be produced. The company's hydrated lime plant has been in operation for some months now, and has been kept running to its fullest capacity to supply the demand for its products. The entire plant was laid out and its construction supervised by the Fuller Engineering Co., Catasqua, Pa. All of the company's products are sold through its general sales offices, 806-8 Keyser Building, Baltimore, Md.

Cotton Goods Trade.

M. L. Church, secretary-treasurer Capital Manufacturing Co., Marshall, N. C., writes to the *MANUFACTURERS RECORD* regarding the cotton goods trade of Southern mills:

"In a few words, we think that the best, and, in fact, the only step at this time would be to raise the tariff on all imports of cotton goods to such a point that it would prohibit shipment into this country. As far as the welfare of the country in general is concerned, we might perhaps express ourselves differently from the above, but for our own business this step would be of most advantage to us."

A \$100,000 Fertilizer Factory.

The International Agricultural Corporation, 165 Broadway, New York, will build a \$100,000 fertilizer factory at Americus, Ga. A site has been selected and preparations are being made to begin the construction of the necessary buildings.

Chemicals from Louisiana Salt

[Special Correspondence Manufacturers Record.]

Pine Prairie, La., May 27.

Manufacturing chemicals from salt, precisely on lines suggested by Dr. David T. Day, United States Geological Survey, in a notable article on Louisiana's opportunities for a unique, important and most profitable industrial development, published a few years since in the MANUFACTURERS RECORD, is in process of establishment right now at this interior Louisiana spot, hitherto unknown to fame, and to-day no more than a way station on a branch line of railroad. The development is in competent hands, however, amply backed financially, and with proper co-operation by transportation companies—which may probably be taken for granted—Louisiana will be given additional pre-eminence among the States for a varied line of products. Louisiana almost has a monopoly of the sugar-cane production of the United States; Louisiana's red cypress is now being sold in nearly every city in the land; Louisiana's tabasco sauce is used all over the world; Louisiana's perique tobacco is known of all smokers; Louisiana's present salt mines could salt the world for centuries, and Louisiana sulphur supplies at least 95 per cent. of the sulphur consumption in the United States. With the establishment of chemical industries for the conversion of salt into caustic soda, soda ash and bleaching powder, Louisiana would provide the most important development of the kind on American soil, and would furnish products now very largely imported to this country and in the manufacture of which Edinburgh and the cities of Germany at present lead the world.

The development at hand is being made by the Myles Mineral Co., Hibernia Building, New Orleans. It is capitalized at \$500,000. It controls, through fee simple ownership and 50-year leases, about 9000 acres of land in Evangeline parish—formerly a part of St. Landry—about 35 miles south of Alexandria. The station of Pine Prairie is on the Louisiana line of the Rock Island Railroad, whose Southern terminus is Eunice, 18 miles southwest of Pine Prairie.

At the head of the company is Gen. F. F. Myles, of large experience in mining, manufacturing and financial operations. General Myles formerly operated the Avery Island salt mines, and later on discovered and developed the salt mines at Weeks Island, owned and operated today by the Myles Salt Co. In addition to mining salt for the past 15 years, General Myles has successfully worked silver mines in Arizona and a gold mine in New Mexico, in which latter enterprise he still retains his interests. It was therefore as an expert, and not as a haphazard wild-catter, that General Myles began the investigation which resulted in his selection of the Pine Prairie properties as a field for activities. His primary purpose was to develop a new oil field, and to this end he secured the services of Dr. G. D. Harris as geologist. General Myles and his partner in the enterprise, H. M. Journee, also of New Orleans, began with Dr. Harris a systematic exploration of the undeveloped oil territory of Louisiana. This was in the spring of 1909. They started in at the outskirts of the Jennings oil field, providing themselves with a complete campers' outfit, which they would move from place to place in accordance with developments. Within two weeks they had reached the Pine Prairie section. Here they found such promising indications that Dr. Harris felt justified in advising a location. Surface outcroppings

of limestone carried fine, black asphaltum particles, which filled the limestone pores and under heat exuded oil. There was a bubbling of gas at the surface of the streams and pools, and the territory was closely dotted with dome formations.

Now, saline-dome oil was what General Myles had started after. Until the Lucas gusher broke out at Spindletop in 1901 saline-dome oil was not known in commercial quantities along the Gulf border, nor was the nature of its occurrence understood at all. That Lucas "Texas wonder" established some geological facts now well recognized, but up to that time unknown to even the greatest scientists.

"Since 1859," says Dr. Harris, "geologists and well operators have been accumulating knowledge regarding the geologic occurrence of stratum oil and gas, formation after formation having been added to the 'productive' list, until it now includes beds that range in age from Ordovician to Recent. Certain classes of oil and gas are expected from certain beds or horizons in Pennsylvania, West Virginia, and so on. The composition of saline-dome oil may or may not vary, but it has no relation to the particular stratum in which it is found. It occurs now where it stopped in its last migration, in beds ranging from Cretaceous to Quaternary, inclusive. Stratum oil or gas may have originated in the stratum where it is now found; saline-dome oil and gas are certainly migrants."

In the oil fields of Caddo and Corsicana oil and gas are co-extensive with certain widespread, well-known geologic data. Along the Gulf border of Louisiana and Texas all the developments are of saline-dome oil and gas. Only in Terrebonne parish, where there is a great abundance of natural gas, but with oil practically unknown, are there indications pointing clearly to the lack of local dome structure. Here, in the opinion of geologists, the wide distribution of notable gas escapements naturally suggests that there are in these areas deeply-buried, broad structural features tending to favor the accumulation of hydrocarbons in areas of considerable lateral extent, and there may be a Terrebonne uplift corresponding to the Sabine uplift in which the Caddo field occurs. A number of wells have been sunk in Terrebonne parish by I. N. Knapp and others, but while enormous flows of gas have been brought in, the absence of cap rock or other natural firm bed to hold the casing has resulted in a blow-out and cave in every time, and the development of the field is held by authorities to be dependent on the invention of some method for properly setting a casing that will hold under conditions there found.

As the oil production in commercial quantities of Southern Louisiana, as well as of Southeastern Texas, is solely from the vicinity of saline domes, the understanding of which is an altogether recent development of scientific investigation, it is of interest to recount some of the conclusions that have been reached as to the origin, history and structure of saline domes. It is a matter of more or less public knowledge that when the sulphur deposits near Lake Charles were encountered the prospectors were boring for oil, while Captain Lucas at Spindletop believed he was in a great sulphur deposit up to the moment when his well went wild with a gusher flow of petroleum estimated at 75,000 barrels per 24 hours. What had happened and why was a matter of earnest discussion by the geologists

of the world. Captain Lucas advanced a theory that the elevation at Spindletop, a very low mound or dome, was caused by gas pressure from the great pool of oil 1000 or more feet beneath the surface.

Others held to the theory that the pressure was hydrostatic. As Captain Lucas had had very extensive experience in Europe, and had also made borings in some of the Five Islands along the Louisiana coast, these islands being domes of several hundred to more than 2000 acres in extent, rising above the surrounding marshes to as high as 200 feet, in all of which salt is encountered at varying depths, geologists began to make investigations as to the relation between mounds and mineral deposits. Thus to Captain Lucas is credit due for starting this new branch of geological investigation.

In 1907 Dr. Harris, in Bulletin No. 5 of the Louisiana Geological Survey, first suggested that growing crystals of salt were responsible for the dome formations. The domes appear to be situated at the junction of fault lines. The nuclei of such domes as have been penetrated sufficiently deep to admit of a decisive determination are generally found to be made up of solid crystalline rock salt. Limestone of secondary formation is found to a small extent. Gypsum is a common dome material, and sulphur, sometimes in important masses, alternates with gypsum. It is Dr. Harris' belief that as these substances have crystallized from warm supersaturated solutions, crystalline growth has exerted an almost irresistible force that has bulged up all superadjacent beds in the peculiar domelike forms. Here he points out the excellent character of the structure for concentrating oil and gas. The oil or gas may have collected in a concavo-convex porous crystalline limestone capping of the saline nucleus, as at Spindletop, or the oil may have been entrapped as it descended in a porous stratum that was tilted up and pinched out by the upward movement of the saline plug, as at Anse la Butte. Where the saline plug is not overlain by either pervious or impervious layers, neither oil nor gas is now to be found near it. If the salt nucleus, through approaching the surface centrally, has at depths of several hundred or a thousand or more feet passed through pervious or impervious layers, some of which contain hydrocarbons, the chances are, in the opinion of Dr. Harris, that the upbended margins of the pervious layers next to the rising salt nucleus will be so sealed or compressed as to produce local pockets, wherein oil and gas may collect. Therefore, on this theory, when oil is to be found about a dome formation it should be looked for just outside the central salt dome.

This theory has been adopted by General Myles in his operations at Pine Prairie.

Altogether, eight wells have been sunk here. It is the belief of General Myles, based on the evidence of these borings and on other investigations, that the salt dome covers an area of 1500 acres, in which there is 5000 feet or more of pure rock salt, beginning at an average depth of 500 feet below the surface and capped by 400 feet of limestone rock. The same quality of salt was found wherever salt was struck. It analyzes an average of 99.5 chloride of sodium, and the quantity of the deposit is almost beyond comprehension. It is believed that the boundaries of the salt dome have been defined, and that oil and gas will be found in commercial quantities on the sides of the dome in accordance with the history of gas and oil finds in the saline dome formations of Louisiana and Texas.

Considerable oil and gas have already

been struck, though oil has not yet been found in commercial quantities. In addition, however, to practically exhaustless quantities of salt of great purity, there is 400 feet of limestone found at varying depths from surface outcropping to 100 feet beneath the surface. There is a gypsum bed 300 feet thick found at a depth of 200 feet. Pyrites is of frequent occurrence, and although now found at too great a depth for profitable working, it is thought possible that in subsequent borings it may be discovered nearer the surface. General Myles will keep on prospecting till this whole territory of 9000 acres is proved up, for it is his practice to never let up in any enterprise till he gets everything possible out of a situation.

It is thought possible that a sulphur deposit of importance may be encountered, as such showings as have been made usually indicate the presence of greater deposits.

Whatever additional industries further developments may suggest, it is the intention of the company, based on what is already assured, to erect chemical works for the manufacture of caustic soda, soda ash and bleaching powder by either the Solvay or electrolytic process. These from the salt and limestone. From the abundant limestone and shale Portland cement will be manufactured with the use of oil and gas. It is the expectation that oil will be found sufficient for all purposes, and there is probably sufficient gas already developed. From the gypsum it is proposed to make cul-rine, alabaster and land plaster. The company will also mine and manufacture the rock salt into all grades of commercial salt, which it is expected to market throughout this country and the world. Particular attention would be paid to the development of the export trade via Galveston and the Atlantic Coast trade via Texas City.

All these industries, however, are contingent on satisfactory freight rates, but no serious difficulty can be apprehended on that score, for the creation of new and important traffic of this kind is universally fostered by transportation companies. It would seem practically certain that, in addition to the single line already serving this section, the prospective development of an extensive industry such as is proposed would bring new railroads in. The Gulf, Colorado & Santa Fe is now at Oakdale, only 12 miles to the west, and at the same place is the St. Louis, Watkins & Gulf, a subsidiary of the Iron Mountain. The Southern Pacific is at Mamou, hardly eight miles distant, so that the best railroad transportation facilities might be regarded as a reasonable certainty as soon as they are required.

The record of the borings gives the history of the field and the justification for expectations of a great development here. The history herewith is furnished by General Myles. Well No. 1 was started in May, 1909, on the apex of the largest dome in the field. After going through 80 feet of sand the drillers struck 10 feet of shale, when they got into a pocket of oil and gas. At 104 feet they got into limestone. Eighty-five feet in the limestone a three-foot hollow place was struck, which contained oil and gas. After that there was 300 feet of limestone, porous and containing a good deal of oil and gas. Below the limestone was the rock salt.

Well No. 2 was sunk three-eighths of a mile north of No. 1, in the anti-elynal of the dome. At 250 feet limestone was struck. There was 60 feet of it. At 310 feet from the surface three and one-half feet of oil sands were struck, yielding about five barrels a day of heavy lubricant oil with asphalt base. Then, after 85 feet of limestone, 10½ feet of oil sands

were struck, yielding a lighter oil, but not much of it. At 470 feet from the surface, in limestone, there were large crystals of sulphur found, and at 480 feet there was pure sulphur, two feet in thickness. After this 15 feet of iron pyrites was found, and under the pyrites rock salt.

Well No. 3 was sunk one mile northeast of No. 2. After 200 feet of shale and thin limestone a deposit of pure gypsum was struck, which continued for 300 feet; then rock salt. A diamond drill was put on and bored through 1050 feet of pure salt.

Well No. 4 was put down about 400 yards east of No. 3. At 480 feet the drillers struck a cave, lost the water and quit. Some shale and sand had been encountered, but no limestone.

Well No. 5 was put down 1000 feet west of No. 2. After going down 2200 feet the hole was lost, the sand caving in and clamping the pipe. Shale and gumbo were found, and there were gas showings at times. It is believed that oil might have been found here had the boring continued.

Well No. 6, 300 feet west of No. 2, was lost at 1800 feet through a twist-off of the pipe. Considerable showings of gas had been found.

Well No. 7, 50 feet west of No. 2, went through shale, plates of limestone and gumbo, and struck salt at 520 feet. There were traces of oil, considerable gas showings and some pyrites mixed with the shale.

Well No. 8, 150 feet west of No. 2, was down 1413 feet on May 20, through limestone, shale, very hard pyrites, some sandstone, with oil and gas showings from 900 feet. Manifestly the well is on the edge of the salt dome, and it is the belief that oil will be struck in this well. If not here, it is considered a reasonable certainty that somewhere in the field a producer will be found. Since the drilling has begun the field has been visited at different times by Dr. C. W. Hayes and Dr. David T. Day of the United States Geological Survey, both of whom agreed with Dr. Harris in the opinion that the prospect is excellent for an important oil development here.

It is the belief of most of those who have given to the matter any investigation whatever that only a small part of the oil of Louisiana has been found. Much of that discovered has been found in an accidental way, and there has been no systematic exploitation of the State as a whole by practical oil operators. If General Myles develops a fine field here, a great stimulus would doubtless be given to saline-dome exploitation all over Louisiana.

ALBERT PHENIS.

Window Glass Plants.

The Bonhomi Window Glass Co. will build works recently mentioned as to be established at Atlanta, Tex. It will erect brick, iron and wood buildings costing \$75,000, and install gas engine, electric motor, electric fan, glass machinery, etc., for a daily output of 1000 boxes of window glass. This company's officers are: President and manager, Edgar Berry; vice-president and secretary, Ed. P. Jones; treasurer, P. C. Willis.

The Caddo Window Glass Co., Shreveport, La., will build a window glass factory of fireproof construction, the cost to be 75,000. It will install machinery for a daily capacity of 800 boxes of 50 feet each. August Bolanger, formerly interested in glass manufacture in Pennsylvania, is president and general manager.

A plantation of 2100 acres, including a peach orchard in Sumter county, Georgia, sold last week for \$126,000, or \$60 an acre.

SOUTH CAROLINA DRAINAGE.

Plans for It Give Impetus to Tile Industry.

[Special Cor. Manufacturers Record.]

Columbia, S. C., May 26.

It is said by well-known authorities that the most fertile of the farm lands of South Carolina lie between a line running from Marlboro county, near the North Carolina line, down through the lower central part of the State to Hampton county, bordering the Georgia line and the coast. Yet comparatively small parts of this territory is developed along agricultural or other lines.

This is due to the fact that the land in that section is so flat, swampy and without drainage facilities that it is almost an impossibility to carry on farming work without first draining the whole area. It is gratifying to the people all over the State to learn that a movement, which is just in its infancy, has been started, whereby that whole section of the State will be drained, and in this way will be made the most ideal farming land to be found in the South. There seems to be nothing in the way of the people of this section of the State securing the use of these lands, except the necessary drainage. The land is so level and fertile that all kinds of improved farming machinery that has been put in the field in the last few decades could be used to the very best advantage in this area of 3,000,000 acres.

Mr. A. G. Smith of Chicago came two years ago to the office in this city of the National Bureau of Plant Industry. Almost the first thing he did after taking up the demonstration work was to drain a farm at Marion, S. C., with tile and develop an almost worthless tract of land into one of the best-paying farms in the State. The cost for draining this land with tile, however, was very high, there being only one farm to be tilled, as the tile had to be shipped from points in North Carolina and Tennessee. In fact, the freight on the tiles from these points was equal to the cost of production of the tile at the factory. With this farm, however, as an example, Mr. Smith started on the road and made a number of addresses for better drainage of the lands in lower South Carolina.

The General Assembly during its last February session passed what is now known as the drainage law, which is somewhat similar to the ones in other States. If this law is worked out to its fullest extent it will no doubt result in the complete reclamation of all the fertile land in the swampy section of the Palmetto State. The law provides for a board of viewers, which will be elected by the majority of the people, that is composed of people desiring their lands to be drained. It is so fixed in this law that the only persons that will be levied on for the drainage taxes will be the people who get the direct benefit of the system. To do this work 25-year bonds from each county affected will be issued. When the money is paid for these bonds the board of viewers will look over the land that is desired to be drained and will have power to appoint an engineer to make the necessary surveys, plans, and estimate the cost.

A number of people in the lower section of the State are preparing to issue the necessary bonds to carry along the proposed work. Then, too, there is a general awakening of interest in diversified farming in all parts of the State. There is one drawback—the small supply of tile. In a small way this is just beginning to be manufactured in this State. There is plenty of room for more in this section. A few investors have taken hold of this opportunity, and some plants have already been established, while others are proposed.

The first plant to be established was put into operation a few days ago by M. W. Mayes, a practical brickmaker, who came to this State direct from Missouri to establish a tile factory at the small town of Bowman, which is almost in the heart of the undrained section. The next plant, the Columbia Brick Co., will manufacture not only brick and tile, but all sizes of sewer pipe as well. It will probably begin to put on the market the much-needed tile within a very short time. Since the drainage law has been passed such small towns as Darlington, Manning and Bishopville, S. C., have been agitating the establishment of tile plants. As the demand is great, experts say there should be more of these industries established.

Illustrative of the situation is Orangeburg, with its surrounding territory. Within a radius of four to six miles of the town land sells on the average at \$125 per acre. Two miles beyond, land in the more flat and undrained section can be bought for from \$3 to \$5 per acre. If it were properly drained the land would be worth much more. The good farming land in the county is drained by the open-ditch system, which, while serving the purpose at present, is not as good as tile drainage.

ROY G. BOOKER.

Farming With Dynamite.

A book entitled "Increase the Crop Per Acre," which describes the use of explosives in farming and has 36 full-page and 17 part-page illustrations, is being distributed by the Pennsylvania Railroad in its territory. With this latest addition to its agricultural literature the Pennsylvania Railroad now has on hand for distribution 11 pamphlets, including "Potato Culture," "Alfalfa," "Use of Lime on Land," "Seed Grain Suggestions," "Orchard Primers—Planting, Pruning, Spraying and Cultivation," "The Pennsylvania Railroad and the Farmer," and "Good Roads at Low Cost." "Increase the Crop Per Acre" in 112 pages tells of the many economies which may be effected on a farm by the use of dynamite. The first chapter describes methods of "Clearing the Land," the next "Getting the Farm in Shape," then "Preparing the Land for Crops," and last "Keeping Up the Farm." Among the subjects treated in the Pennsylvania's "dynamite" booklet are blasting stumps and boulders, felling trees, draining swamps, grading roads, sinking wells and digging post holes, blasting "hard pan" and other soils, breaking up ice gorges, starting log jams and similar ones. For more than three years the Pennsylvania Railroad has been active in agricultural extension and good-roads work. The company recently announced that it would be uncensuring in its efforts to increase the production of farm crops along its lines. In the booklet just issued the last chapter, "The Pennsylvania Railroad and the Farmer," describes the work it is trying to do. In closing, the management says:

"What does it all mean to the railroad? It means there will be more fertilizers to haul, more farm implements, more raw material from which these tools are made, more crops to haul and more passengers to carry. It means that the railroad will be doing its duty to the public, to its stockholders in the intelligent exercise of its initiative, and when reduced to a finality, that the railroad is performing its share of the work which must be done by the newly-formed partnership, railroad and farmer, if agricultural communities are to progress and prosper."

It is announced at Jacksonville that the Merchants & Miners' Transportation Co. has established regular sailings between that port and Philadelphia.

Literary Notes.

Scientific Management and Railroads. By Louis B. Brandeis. Publisher, the Engineering Magazine, New York. Price, \$1.

For sometime the Engineering Magazine has been active in the movement for the elimination of waste in industry through increased efficiency of men, machinery and material. The movement recognizes a decline of competition as a force making for progress in the industrial system of today, and asserts that a definite purport of efficiency is the only cure "for a vicious cycle of the increasing costs and increasing prices." This question of efficiency was brought to the front in the hearing before the Interstate Commerce Commission upon new tariffs proposed by railroads of the United States looking to advances in freight rates, and on January 3, 1911, Mr. Brandeis submitted to the Commission a brief in which evidence given at earlier hearings was discussed. About one-half of the brief related to the subject of scientific management, and that is the part which has been published in this permanent form.

Metal Work and Etching. By John D. Adams, with additional designs by other writers. Published by Popular Mechanics Company, Chicago. Price 25 cents.

This book is the latest of a series of handbooks intended to furnish information on mechanical subjects at a small expense. It is a manual for art metal workers, giving details for a great variety of useful and ornamental objects, such as book ends, desk sets, blotting pad corners, paper knives and letter openers, stationery racks, racking blotters, desk calendars, match boxes, tie and pipe holders, whisk-broom holders, candle sconce, art jewelry, hinges, drawer pulls, etc. The book inspires originality in this work, and the latter part of the book is composed of original designs by different persons. It is clothbound, and will make a neat and interesting addition to any mechanical and arts craft library.

Report on the Pittsburg Transportation Problem. By Bion J. Arnold, consulting engineer, Chicago.

This report, submitted to the Mayor of the city of Pittsburg, was made after a full and expert investigation, with the view of formulating plans for extensive improvements looking to an enlarged and unified Greater Pittsburg. The text of the report includes a general discussion of the transportation problem; review of surface traction development in the Pittsburg district; its immediate transit needs; financial and operating records of the Pittsburg Railways Co.; comparative traction results in largest American cities; city-planning and transportation, and two appendices discussing the rerouting problem and regulative legislation. The report is quite comprehensive, and is accompanied by numerous charts, maps and illustrative diagrams.

To Build Big Addition.

The R. J. Reynolds Tobacco Co. of Winston-Salem has decided to build a big extension to one of its factories. It will erect a five-story building of mill construction, with about 125,000 square feet of floor space, and the contract will be awarded on June 11. J. E. Sirrine of Greenville, S. C., is the architect in charge.

Within the next 60 days more than 100 barges will be required to handle on the Houston ship channel a shipment of 350,000 bags of rice for export under the auspices of the Southern Rice Growers' Association.

Reinforced Concrete in New Buildings at Louisville.

[Special Correspondence Manufacturers Record.]

Louisville, Ky., May 26.

Louisville is having a building activity of larger proportions than any it has ever before enjoyed. Buildings of all kinds are being erected, public and private, office and factory, hotel and apartment-house. The character of the construction is substantial and the investments large, so that the eyes of contractors will be turned toward Louisville for many months to come. Most of those of importance are just being gotten

Association, William Heyburn, president; McDonald & Dodd, architects; cost \$300,000.

Henry Watterson Hotel, to be erected by Watterson Realty Co., Sam P. Jones, president; Brinton B. Davis, architect; cost \$600,000.

Office building, to be erected at 4th and Walnut streets by Jörn P. Starks; plans not yet drawn.

Annex of Weissinger-Gaulbert apart-

while certain legal complications will have to be disposed of before the building becomes a reality, it is practically assured that it will go up. The Bornstein Realty Co. has secured a 99-year lease on the site at the northeast corner of 5th and Walnut streets, and has plans for a 10-story building. Definite decision as to the erection of this structure has not yet been made, however.

One of the features which cannot escape the notice of one investigating building conditions in Louisville is the immense number of apartment-houses which are being erected. For several years there has been marked activity in this connection, most of the houses being three stories high and providing for 8, 12 or 16 apartments. More ambitious buildings are now being erected, the Weissinger-Gaulbert annex being a type. The Fourth Avenue Realty Co., of which H. J. Schleich is the head, is building a large bachelor apartment-house near Fourth avenue and Breckenridge street. This will contain 140 rooms, and will be three stories high.

The plans for the new City Hospital plant, for the construction of which a bond issue of \$1,000,000 was approved by the municipality last November, are being rapidly completed by D. X. Murphy & Bro. of Louisville, assisted by Louis R. Curtis of Chicago, who is an expert on this sort of building. John H. Leathers is chairman of the commission, which is bi-partisan and non-political, and which has announced that politics will have absolutely nothing to do with the award of the contracts or the erection of the buildings. The other members are Dr. Ap Morgan Vance, Judge Arthur Peter and Joseph Hubbuch, Sr.

The present hospital buildings occupy a beautiful site of seven acres. The old

structure. These will not be more than four stories in height, including the basement. The pavilions will be divided into wards and classified for the various diseases and operating departments. A building to accommodate nurses employed in the hospital, and having accommodations for 100, will be erected. There will be a chapel and a morgue, as well as a garage for the ambulance service.

The main building will contain an auditorium which may be used by the medical societies of Louisville and vicinity, and arrangements will be made to house there the medical libraries of the city. The physicians of the city and county will thus be brought into close contact with the general hospital. Another feature will be a detention ward, where insane persons may be kept pending examination. At present the county jail is used for this purpose.

The hospital will have its own power plant, which will supply power, heat and light for the building. Elevator service will be provided in all the structures, the elevators being of the most modern type. Intercommunicating telephone service connecting the various departments with the administration building will also be installed.

The walls of the pavilions will be almost entirely of glass, so as to enable a maximum amount of light and air to be provided. The glass will be set in concrete. No provision is to be made to treat tuberculosis cases, as a handsome new hospital for this purpose has been erected by the city and county jointly at Waverley Hills. The Hospital Commission will probably appropriate \$25,000 for the Waverley Hills institution, in order to enable it to extend its work as much as possible.

The plans for the hospital buildings are the result of visits by members of the com-



DESIGN FOR HENRY WATTERSON HOTEL.

into shape by the architects to enable specifications to be prepared, so that the contractors will be able to begin figuring on a large part of the work in the very near future.

R. J. Tilford, building inspector of Louisville, is of the opinion that 1911 will set a new record for the city. The first quarter showed a gain of more than 50 per cent. over the corresponding period of last year, the investment in 1910 being \$927,389, compared with \$1,570,960 for the first three months of this year. March showed the splendid total of \$1,259,825, this being the largest total ever shown for a single month in the history of the city. Before that \$950,000 was the best record. The fiscal year of Louisville ends August 31, and Inspector Tilford believes that the total for the 12 months ending then will be well over \$6,000,000, against \$5,600,000, the best total shown heretofore. The calendar year should make an even better relative showing.

To give an idea of the extent of the construction work which will be undertaken during the next few months, the following projects may be mentioned:

City Hospital buildings, to be erected by City Hospital Commission, John H. Leathers, chairman; D. X. Murphy & Bro., architects; cost \$1,000,000.

Building of Young Men's Christian

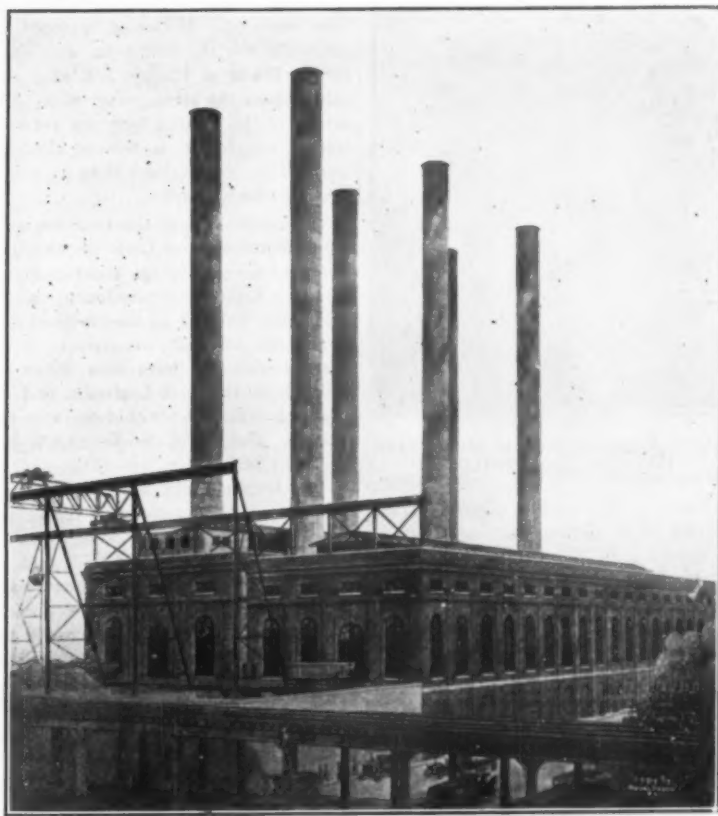
ment-house; McDonald & Dodd, architects; cost \$350,000.

Office building of Inter-Southern Life Insurance Co.; Brinton B. Davis, architect; cost \$750,000.

New plant of Kentucky Electric Co., Robert E. Hughes, president; Louis Streng, chief engineer; building to cost \$150,000.

An interesting feature in connection with the buildings, the construction of which has been announced, is that practically all of them are to be of reinforced concrete. This material has been used with decided success in the case of most of the important structures erected here during the past few years, and will be applied to the Young Men's Christian Association building, the Watterson hotel, the Weissinger-Gaulbert annex and the City Hospital buildings. The Inter-Southern Life building, owing to its height, will have steel frame.

While the buildings mentioned have been definitely decided upon, and work will be begun in the immediate future, there are others which are in project and will undoubtedly be undertaken a little later on. The Caldwell estate owns a large site at 5th and Jefferson streets, and has announced tentative plans for the erection of a 15-story office building. Preliminary plans have been drawn several times, and



DESIGN FOR NEW PLANT OF KENTUCKY ELECTRIC CO.

structure will be entirely demolished, beginning July 1, when arrangements will have been completed for the use of temporary quarters. Not later than September 1 contracts will have been let for the erection of the new buildings. These will be of reinforced concrete and steel construction. There will be a central administration building five stories high, which will have a roof garden. There will be four pavilions, two on each side of the main

mission and the architects to the leading hospitals of the country, while Mr. Curtis has also brought to bear on the problem the experience gained in the construction of more than 30 similar institutions. The commission believes that it will have one of the finest plants of the kind in the world when its work is completed.

Louisville has been coming to the fore of recent years as a convention city. This has been brought about largely as the re-

sult of the addition to its hotel resources through the construction of the splendid Seelbach Hotel and annex. There is now being completed another handsome hostelry, the Tyler Hotel, while ground has been broken for a third, the Henry Waterson, which is to be erected on Walnut street, between 4th and 5th.

The Tyler Hotel was designed by McDonald & Dodd of Louisville, and has been built by the Levi Tyler Land Co., the owner of the property. It is an eight-story building with reinforced concrete frame. The walls have been made with provision for the addition of four stories later on. The exterior wall is of red pressed brick, laid in black mortar, this effect being secured through the use of Pecora water stain. The trimming of the building is of white glazed terra-cotta, the lower story being of cut stone. The hotel is to have 125 rooms, all but 20 being equipped with bath. There will be two elevators, one a passenger and the other a service lift.

The Levi Tyler Land Co. has acted as the general contractor and has done the

and a large amount of tile of unusual design will be used.

The main lobby will be on the first floor. It will be spacious, and will contain several marble columns 26 feet in height. A mezzanine floor running entirely around the lobby will be constructed. Two grand marble staircases will be a feature of the lobby. The first floor will contain the bar, cafe, ladies' waiting-room and five storerooms fronting on Walnut street.

The parlors of the hotel will be on the second floor, as well as several staterooms, which are to be furnished splendidly in colonial style. The large dining-room will be on this floor, as well as several private dining-rooms. There will be 250 guest-rooms in the remainder of the building, all equipped with shower or tub baths. A convention hall and service quarters will be located on the 11th floor. The hall will seat 650 people.

The equipment for the hotel, besides the power and refrigerating plant, will include three traction elevators. An effort to emphasize the homelike appearance of the building is indicated by two balconies on the third and tenth floors. The color scheme of the building will be lightened by the use of varicolored tile in the walls and by the arrangement of the bricks.

The building of the Young Men's Christian Association on the northeast corner of Third avenue and Broadway will cost in the neighborhood of \$300,000, this amount having been raised by popular subscription. The site is 195x160 feet, and the edifice will occupy most of it. It will be six stories high, fireproof and built of reinforced concrete. There will be two gymnasiums and a large swimming pool. The dormitory feature has been made much of, and 275 sleeping-rooms have been provided. McDonald & Dodd of Louisville are the architects, and Shattuck & Hussy of Chicago are being consulted about the arrangement plan. The details of the building have not yet been worked out, but it is believed that the contract for its erection will be let within the next three months.

The stockholders of the Inter-Southern Life Insurance Co. of Louisville have just approved the plan of the directors of the company for the construction of an 18-story office building on the northeast corner of 5th and Jefferson streets. Plans for the structure have been drawn by Brinton B. Davis of Louisville, and the contracts will be let within the next few months. The cost of the structure is estimated at \$650,000.

The building will be constructed of steel, pressed brick, stone and terra-cotta. The first four stories will be of stone, the remaining of gray pressed brick and the cornice of terra-cotta. The structure will be equipped with five electric traction elevators, and will have its own power and light plant. In the basement will be showers and lockers for the employees of a bank, which is to occupy the first floor, and a restaurant will also be located there. The safety vault of the bank will be placed in the basement.

Owing to the fact that the Inter-Southern building will be used largely for law offices, one of the upper floors will be devoted to a law library, which will be the largest in the South. It will have at least 3000 square feet of space.

The building will be 220 feet high and will occupy a site 78½x103 feet. The interior of the bank is to be elaborately finished in marble. In the remainder of the structure the floors will be of tile and the walls to the top of the doors of white marble. The office floors will be of asbestolite. Lavatories with hot and cold

water will be provided in every office suite, and there will be a fountain supplying filtered ice water on every floor. Steam heating will, of course, be used, and toilets will be located on all floors.

McDonald & Dodd, architects for the annex to the Weissinger-Gaulbert Apartment-house, which will be erected on the southeast corner of Third avenue and Broadway, opposite the new Y. M. C. A. building, have announced that they are about ready to let the contracts for the building, the specifications having been completed. Some delays were experienced owing to legal complications in connection with the "tenement-house law" adopted by the Kentucky Legislature at its last session. The law contained provisions referring to back yards, etc., which were intended to apply to houses of the tenement type. It was necessary to get court construction on this point before the building authorities would agree to issue a permit.

The apartment-house will be 10 stories high and will be built of reinforced concrete. It will be faced with pressed brick and cut stone, and will contain apartments ranging in size from one to eight rooms. The plan has been so devised that the size of the apartments is elastic, and they can be enlarged or diminished at will.

Another feature which is new in the designing of buildings of this kind, as far as this section is concerned, is that a great many apartments of two rooms, equipped with kitchenettes, which have electric stoves and other labor-saving devices, have been provided for. This has been given stress because the servant problem, which has been rather simple of solution in the South heretofore, is now becoming more pressing in the larger cities.

Two elevators will be required. They will be of the electric traction type. Power for them will be supplied from the plant of the present building, which will be connected with the annex by a tunnel under Third avenue.

The building is rather tall for the use of reinforced concrete framework. In order that the columns may not be uncomfortably large, the reinforcing will probably be by means of latticed steel girders. In this way a maximum of reinforcement, requiring a minimum of space, can be secured. The building will be the tallest erected in Louisville of reinforced concrete.

Plans have been completed for the erection of Section A of the new plant of the Kentucky Electric Co., a \$3,000,000 corporation, of which Robert E. Hughes is president and L. S. Streng chief engineer. Sargent & Lundy are designing and supervising engineers for the plant, and have drawn plans which will not be completely worked out for several years. The development undertaken for 1911, however, involves an expenditure of \$750,000.

The company has 350 feet of waterfront, 103 feet on 2d street, 200 feet on Washington street and 396 feet on Nelson street. Its holdings are sufficient for the construction of a station with 88,000 horse-power generating capacity, and this is the plant to be ultimately built according to the plans which have been drawn. Thirty-six boilers of 500 horse-power each, but good for 250 per cent., or 1100 horse-power, are provided for in the plans.

There will be a 250-foot stack for each set of six boilers, which will be laid out in batteries of two. The stacks, which will be of steel, self-supporting, set on top of the building and having an inside diameter of 12 feet, will be built as needed, one being included in the plans for this year. They will be lined with brick.

The first section, to be constructed this year, will front 88 feet on Water street. A space 88x305 feet will be used for coal

storage, elevated tracks ultimately running over the entire space. It is also the intention to install conveying machinery and crushing apparatus for carrying the coal to the boilers.

The turbine and boiler-room floors will be on a level with the elevated tracks of the Illinois Central Railroad. The first section will be 100x134 feet, and the generating-room will have foundations with 16,000 kilowatt capacity. Installations of 8000 kilowatt capacity will be provided for during 1911. Foundations will be built this year for six boilers and one stack, the 1912 development plans including the extension of the building eastward and the construction of six boilers and one stack additional.

The boiler-room, including aisles, will be 160 feet 8 inches wide, and the turbine-room, including the switchhouse on the west, will be 73 feet wide. The entire length of the station, including the work which is to be done later, is to be 305½ feet, and its width 160 feet 8 inches. It is laid off in four sections, each containing a capacity of 16,000 kilowatts, the total providing for 64,000 kilowatts, or 88,000 horse-power.

The condenser pits are to be 72 feet deep from the turbine-room floor, vertical condensers being used. In the first section, to be constructed immediately, the pit will contain four condensers, while the remainder will contain two each of larger capacity.

The pit will be water-tight, and will connect by tunnel with the screen well at the northwest corner of the property. This is, in turn, connected with the river by twin tunnels for intake and discharge. These have already been built. The condenser pit, which is now under construction, is 38 feet in diameter, including a wall thickness of four feet of reinforced concrete, so that the inside diameter is 30 feet. The base will contain 20 feet of reinforced concrete, the condensers being set in the base.

The contract for the construction of the condenser pit was let to the New England Engineering Co. of New York, which sublet the entire job to the Merrill-Ruckgaber Company of New York. This concern sublet the concrete pile work which will support the pit to the Raymond Pile Co. of Pittsburg. It will require 585 piles. It is estimated that the foundations will consume 5000 barrels of cement, the contract for this having been let to the Kosmos Portland Cement Co. of Louisville. The foundations will be ready for the steel erectors in August. The following contracts for the equipment have already been let:

General Electric Co., turbo-generators, turbo-excitors, motor generators and switchboards; Babcock-Wilcox Company, four Babcock & Wilcox boilers with 5000 square feet of heating surface each, stokers and superheaters; Alberger Condenser Co. of New York, condensers; H. R. Worthington of New York, two boiler-feed pumps; Platt Iron Works of Chicago, one feed-water heater.

A. Bentley & Sons Company of Toledo, O., is now at work on a warehouse for the Louisville Public Warehouse Co. at 7th and Magnolia streets. The building consists of three stories and basement, and was designed by D. X. Murphy & Bro. of Louisville. It is being built of reinforced concrete on the mushroom system, which was first used in the Sneed power building in this city, also erected by A. Bentley & Sons Company. The warehouse is 120x180 feet, and is to have a concrete skeleton with brick curtain walls. It will be used exclusively for tobacco storage, and owing to the heavy load which will be carried, the floors will be heavily reinforced. The floor slabs will be eight inches



DESIGN FOR INTER-SOUTHERN LIFE INSURANCE CO. BUILDING.

brickwork. The concrete construction was erected by McCormick-Combs-Brainerd Company of St. Louis. F. A. Clegg & Co. of Louisville secured the contract for the heating and ventilating plant, and Kestner & Heck of Chicago will install the elevators. The Hatfield Electrical Co. of Indianapolis was given the contract for the electrical installations. The interior decorations are to be by the Tiffany studios of New York. The building represents an investment of \$250,000. It is located at 3d and Jefferson streets.

The Henry Waterson Hotel is the design of Brinton B. Davis of Louisville. The general contractors are Caldwell & Drake of Columbus, O. The structure is to be 11 stories high, with basement, and will be built of reinforced concrete and pressed brick. The foundation excavation is now under way.

The basement of the hotel will contain the barber shop, toilets, billiard-room, rathskeller, kitchen, dining-room for help, and cold-storage and power plants. The rathskeller will be unusually elaborate,

thick, and have been figured for a live load of 200 pounds to the square inch.

The construction of this warehouse follows the completion of another, known as No. 1, which was of much the same type. It was smaller, consisting of two stories and basement, and was also of reinforced concrete on the mushroom plan. A Bentley & Sons Company was the contractor for it. The two buildings cost \$80,000.

John P. Starks, a well-known local capitalist, who purchased the site of the First Christian Church at Fourth avenue and Walnut street two years ago for \$350,000, is now beginning work in connection with plans for an office building which will be erected there. Work will not begin, of course, until the new building of the church, which is being completed at Fourth avenue and Breckenridge streets, is ready for occupancy. This will be early next fall.

The Starks building will probably be 15 stories high, and will have quarters for stores on the first floor. Crutcher & Starks, a local retail clothing firm in which Mr. Starks is interested, may occupy the first floor and basement. Mr. Starks has not yet announced who the architect for his building will be.

The Louisville *Herald*, a local newspaper, is soon to have a new home, its lease having expired on its present quarters on Market street, below Fourth avenue. J. C. Shaffer, the Chicago publisher, now owns the *Herald*, and he has made plans for the construction of a building to cost about \$40,000 and to be erected outside the congested business section. Details will be announced and the contract let in the immediate future. W. K. McKay, general manager of the *Herald*, represents Mr. Shaffer.

In view of the fact that there are many large building projects under consideration and not yet definitely decided upon, it is safe to assume that the building boom which is now assuming proportions will last for the next two years, at any rate.

G. D. CRAIN, JR.

Cotton in Oklahoma.

Oklahoma City, Okla., May 19.

Editor Manufacturers Record:

Last year we had a bumper crop in wheat, oats and cotton, and, while there was a fair crop of corn, experience has taught the farmers of this State that the climate is not adapted to corn, is fair for wheat and oats, but just right for cotton, and as they raised some 900,000 bales last year, and got good prices for the cotton and by-products, farmers have cut out wheat, oats and corn nearly altogether in some localities, and to a limited extent in others, and planted cotton. Just this morning we note that our paper publishes some State news to the effect that in some localities where the wheat and oats have been too badly damaged by the drought to make a crop the farmer has plowed it up and is going to plant in cotton, and those who are close observers of past and present conditions are suggesting to the farmer that he turn his attention to cotton, which they say is going to be the crop of this State. This is strictly an agricultural country so far, and as the writer was born and raised in Illinois and lived in Texas 15 years, he has been taking notes all these years of just about what the country in which he lived was good for and adapted to, and he is very much of the opinion that Oklahoma is a cotton State.

ALBERT J. MILLER.

The Retail Hardware Dealers' Association of Georgia elected last week at Macon Messrs. G. W. Woodruff of Winder, president; P. G. Greene of Eatonton and J. R. Hall of Moultrie, vice-presidents, and J. L. Moore of Madison, secretary.

INDUSTRIES WANTED BY SOUTHERN COMMUNITIES

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS RECORD will be glad to receive from responsible correspondents in every town in the South brief items of news about business conditions and the opportunities for industrial enterprises. This information is desired for publication without cost of any kind to the sender, and regardless of whether the writer of the letter is a subscriber or not. The MANUFACTURERS RECORD accepts no paid matter in its reading pages. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South.

This department is open only to news facts of interest to investors, homeseekers and manufacturers. Communications of 200 or 300 words are likely to be given prompter publicity than more extended ones.

BUILDING AT GREENWOOD.

Board of Trade,
Greenwood, S. C., May 25.

Editor Manufacturers Record:

Already there have been completed during the current year the following buildings: Episcopal church, cost \$6000; Sea board Air Line depot, cost \$10,000; several new buildings at the Connie Maxwell Orphanage, cost \$12,000. There are a number of others in the process of erection, contracted for and being planned. Among these is the postoffice, at a cost of about \$45,000. A new warehouse will soon be completed at a cost of about \$8000. The contract has been let for the hospital, which will be erected at a cost of about \$9000. Contract will soon be let for a new dormitory at Lander College, which will cost around \$35,000. An addition will be made to the First Baptist Church, at a cost of \$8000. Plans have been adopted by the South Main Street Baptist Church for a \$20,000 structure, which will be completed before fall. Bonds will be voted in a few days for a new school building to cost \$25,000. The Piedmont & Northern Electric Railway will soon begin work on a passenger and freight station and other terminal buildings to be located here. It is also likely that there will be a Young Men's Christian Association building constructed some time during the year.

Rapid headway is now being made on the grading of the trolley line that will connect Greenwood with Charlotte, N. C., and all indications point to the operation of passenger cars between Greenwood and Greenville before the year has passed. The prospects for our town were never so bright as now.

S. BROOKS MARSHALL,
Secretary.

GUTHRIE AS A SPA.

Chamber of Commerce,
Guthrie, Okla., May 20.

Editor Manufacturers Record:

The untold value of the Guthrie mineral wells water had not been fully realized until within the last six months. It was by mere accident that the mineral water of Guthrie was discovered. It happened that several years ago our citizens were drilling for oil, and after drilling a well something like 14,000 feet they gave up hopes of finding the sought-for treasure and abandoned the well, which has an overwhelming artesian flow of saline water, and other wells were dug in this vicinity, all of which are artesian, and the water of all containing much valuable mineral of various kinds.

The faith of our citizens is so great in the mineral waters here that we have voted \$100,000 as an initiative to exploit our mineral wells. A municipal bathhouse with be erected at once and the parks improved generally.

General Manager Kouns of the Atchison, Topeka & Santa Fe Railroad has written the Mayor of Guthrie that he is ready to proceed with the building of the viaduct for Guthrie. We voted \$45,000 to assist in the building of the viaduct, and in return are informed that in addition to that amount the railway company will

expend close to \$500,000 in railway improvements in our city during the next year.

We have several factory propositions under consideration, and expect to make this year a "record-breaker."

W. A. RAYSON,
Secretary.

WANTS A SEWERAGE SYSTEM.

Chamber of Commerce,
Bowie, Tex., May 27.

Editor Manufacturers Record:

Just received a copy of your journal. It is not a stranger to me. I know what it is. It is one of the best journals in the United States in which to give publicity to industrial propositions.

I have a proposition that might be of interest to some of your readers. It is this: Bowie, Montague county, Texas, with a population of 4000, all white, desires to secure a sewerage system. They have laid aside 20 acres of ground for an outlet plant. This can be leased for a term of 99 years at a very small rent. The business section is paved with vitrified brick, under which sewerage pipe has been laid. This pipe will be donated to anyone putting in a system. Our water situation is ideal, we have a modern water-works system and water in unlimited quantities.

GEO. H. HARRIS,
Secretary.

EXEMPTION FOR INDUSTRIES.

Board of Trade,
Americus, Ga., May 27.

Editor Manufacturers Record:

The Commercial City Bank of Americus is now preparing to erect a bank and office building that will cost \$25,000. The building will be of Indiana limestone. Plans are being prepared by Mr. T. F. Lockwood, architect, Columbus, Ga.

The Interstate Agricultural Corporation of New York will erect here an extensive acid plant, the output of which will be used largely in the manufacture of commercial fertilizers. The plant means an investment of \$100,000, and will give continuous employment to 100 to 150 wage-earners.

The City Council granted a five-year tax exemption to these parties, and will be glad to do likewise to others that will locate plants in the city. Americus wants small industries, and will do her share toward getting them.

C. J. WHITE,
Secretary.

IMPROVEMENTS AT HICKMAN.

Commercial Club,
Hickman, Ky., May 22.

Editor Manufacturers Record:

The contract for the erection of the Chicago, Memphis & Gulf Railroad depot has been awarded to Mr. Tull of Trimble, Tenn., and he, with a force of workmen, have arrived in Hickman to begin work on same. Within a few days after the last rails were laid into Hickman, on May 17, the railroad delivered between 30 and 40 cars of logs to Mengel Box Co., and the first passenger train was run by the company to Hickman on May 21.

Under the supervision of Mr. Goldsburg of Memphis, work on the new city well is

progressing rapidly, and has already reached a depth of about 650 feet, and, it is claimed, would pump now 7500 gallons per minute. It is the purpose, however, of the water-works commissioners to sink it until a bold artesian stream is reached, which will more than double the present water supply. The sinking of this new well has become an urgent necessity as a result of the rapid growth of the city until its present well is entirely inadequate to supply the city with water.

The three large road-grading machines have arrived, and splendid work is being done on the city streets and all the county roads leading to Hickman. These machines are drawn by six large mules each, and the work is excellent.

C. P. SHUMATE,
Secretary.

OIL MILL WANTED.

Hahira, Ga., May 26.

Editor Manufacturers Record:

Hahira wants an oil mill. It can supply all the seed for a large oil mill. Farmers will take all the meal and fertilizers manufactured. The farmers will all take stock and the merchants will unite in the movement.

W. W. WEBB.

LOOKING FOR INDUSTRIES.

Chamber of Commerce,
Wilson, N. C., May 25.

Editor Manufacturers Record:

Wilson's Chamber of Commerce is seeking a proposition from some reliable concern for the erection of a gas plant.

The establishment of a felt factory has been under consideration.

Wilson wants more industrial enterprises, and will offer reasonable inducements to parties who would consider coming here with this in view.

Wilson is a town of about 10,000 people, with an exceedingly rich back-country. Her natural advantages are attractive. Please consult the Chamber of Commerce for any definite information desired.

H. D. BROWN,
Secretary.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 104 and 105, and under "Cities, Towns and Railroads Inviting Factories" on pages 140, 147, 148, 149, 150, 151.

For Better Waterways.

The Mobile Basin and Tennessee Valley Association at its Birmingham meeting elected Messrs. John Craft, Mobile, Ala., president; John W. Magdoo, Rome, Ga., Nathan Lobman, Montgomery, Ala.; J. H. Van Hoose, Birmingham, Ala., and W. W. Craig, Columbus, Miss., vice-presidents; Benjamin B. Cox, Mobile, Ala., secretary-treasurer, and W. C. Ryburn, Guntersville, Ala., assistant secretary. The association adopted resolutions asking Congress to place upon the continuing contract basis the plans for making navigable all the year the Tombigbee River from Aberdeen, Miss., to the Alabama River; for opening the Coosa-Alabama River from Rome, Ga., to the Gulf; for canalizing the Valley River from Bessemer to the Warrior River, and for deepening the outer bar of Mobile Bay to 25 feet.

Frank S. Gannon, for many years identified with leading railroads of the South, has taken offices at 2 Rector street, New York, and proposes to devote himself to technical work, examining and appraising railroad properties and acting as advisory counsel concerning them.

The Peninsula Boulevard.

Mr. M. C. Armstrong, chairman of streets, roads and parks, Newport News Chamber of Commerce, writes to the MANUFACTURERS RECORD:

"The Peninsula Boulevard, which is now under construction between Richmond, Newport News and Old Point, passing through Williamsburg, will be known as a sand-clay road. The work is done under the supervision of the Virginia Peninsula Good Roads Association, which consists of an association which was started six months ago to improve the roads on this peninsula. There are no contracts let for the work. Mr. L. B. Manville, an expert road builder, has charge of the construction and is doing the work by day labor. Out of the approximate 90 miles to be built, we have already constructed about 35 miles. The funds to build the road were raised as follows: The county officials contributed \$5200, the State \$1500, and by private subscription in the different counties \$2000. The city of Richmond agreed to raise \$5000, which they have about done, and this end of the peninsula has already raised \$5000, making a total of about \$20,000, which will be used in the work. From present indications the road should be completed by the first of September."

Water-works Men to Organize.

[Special Cor. Manufacturers Record.]

Columbia, S. C., May 29.

The South Carolina Water-Works Association will be organized at Columbia, S. C., on June 28. Representatives of water-works supply houses and manufacturers are invited to attend the convention. The privilege of the floor will be extended to them to explain any and all points about their output. Provision will be made to make such representatives associate members. W. F. Stieglitz of the Columbia (S. C.) water-works will furnish any further information.

Sugar Mill Doubling Capacity.

The Youngville (La.) Sugar Factory will invest about \$100,000 for improvements during 1911. These improvements will provide for doubling capacity, which is 120,000 pounds of sugar daily. The new mechanical equipment includes crusher, double effects, vacuum pan, four boilers, air compressors, tanks and big storage derrick, all costing about \$75,000. This derrick is being furnished by the American Hoist & Derrick Co. of St. Paul, and the other machinery by the Payne & Joubert Machine & Foundry Co. of New Orleans and Birmingham.

A \$250,000 Sugar Mill.

The Hill Sugar Co., Lon C. Hill, president, Harlingen, Tex., has determined all details of its proposed plant and awarded contract for construction and machinery to the D. J. Hayes Company of Houston. Its buildings will be of mill construction, to be equipped with sugar and syrup mill machinery costing \$250,000. This machinery has been purchased, and will have a daily capacity of 750 tons of sugar-cane.

New York and Chicago Cement Shows

It has been announced that the Second Annual New York Cement Show will be held in Madison Square Garden January 29 to February 3, 1912, and the Fifth Annual Chicago Cement Show in the Coliseum February 21-28, 1912. The shows are held under the auspices of the Cement Products Exhibition Co., 72 W. Adams street, Chicago, Ill.

Kansas City capitalists have purchased 27,000 acres of land in Lake county, Florida, where they propose to establish a great winter resort.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Bradentown, Fla.—City voted \$20,000 bond issue for paving.

Dayton, Tex.—Dayton district of Liberty county voted \$275,000 bond issue for construction of shell road.

Huntington, W. Va.—Cabell county voted \$30,000 bond issue to improve main county road with asphaltum, brick, stone, granite block, macadam or other material.

McGregor, Tex.—Precinct No. 5 of McLennan county voted \$100,000 bond issue for road construction.

San Marcos, Tex.—Road district No. 1 of Hay county voted \$20,000 bond issue.

Shinnston, W. Va.—Town voted \$10,000 bond issue for paving.

Tarboro, N. C.—City voted \$25,000 for paving.

Bonds to Be Voted.

Colesville, Md.—Colesville district of Montgomery county votes June 10 on \$12,000 bond issue for purchasing portion of Washington, Colesville and Ashton turnpike and for improving about one mile of Columbia road.

Lockhart, Tex.—Road precinct No. 4 of Caldwell county votes June 24 on \$25,000 bond issue for macadamizing roads.

Longview, Tex.—Gregg county will vote within 30 days on \$200,000 bond issue for road macadamizing.

Morgantown, W. Va.—City votes June 24 on \$100,000 bond issue for street paving, etc.

Richmond, Tex.—Fort Bend county votes June 26 on issuing \$75,000 of bonds for road construction.

Tampa, Fla.—City contemplates bond issue for extension of paving system and other improvements.

Valdosta, Ga.—Lowndes county recommends issuance of \$200,000 of road bonds.

Waco, Tex.—McLennan county votes June 27 on \$600,000 bond issue for road improvements.

Contracts Awarded.

Grant Parish, La.—City awarded contract at \$57,920 to construct 32 miles of road from Colfax to Rochelle.

Muskogee, Okla.—City awarded contract for paving streets with cement, gravel, sand and asphalt.

Nashville, Tenn.—City awarded contract to construct granitoid curbing and sidewalks on three streets.

Norfolk, Va.—Norfolk & Portsmouth Traction Co. awarded contract at about \$12,000 for paving section of Main street.

Oklahoma City, Okla.—City awarded contracts at about \$250,000 for paving several streets and two boulevards.

Temple, Tex.—City awarded contract to pave number of alleys in business section with vitrified brick.

Tulsa, Okla.—City awarded contract to construct 1000 feet of cement sidewalks.

Waynesville, N. C.—Southern Assembly awarded contract for constructing five miles of sand-clay boulevard around lake.

Wharton, Tex.—City awarded contract to construct three miles of concrete sidewalks.

Wharton, Tex.—City awarded contract for constructing five miles of concrete sidewalks.

Contracts to Be Awarded.

Annapolis, Md.—City receives bids until June 5 for paving 2d and Madison streets with bituminous macadam; also grade, set and reset curb, etc.

Baltimore, Md.—City receives bids until June 7 for constructing roadway and paths in Wyman Park.

Beaumont, Tex.—City will pave Buford street with six inches of shell.

Bluefield, W. Va.—City receives bids until June 16 for macadamizing section of Princeton avenue.

Chattanooga, Tenn.—Hamilton county receives bids until June 15 for constructing 32,000 square yards of pavement and 1900 linear feet of concrete curb and gutter on Montgomery avenue; 75,000 square yards of additional pavement, with 42,000 linear feet of curb and gutter, to be constructed on streets later.

Cullman, Ala.—City will construct cement sidewalks.

Dallas, Tex.—Street Commissioner recommended award of contract at about \$3551 for grading portion of Bishop street.

Decatur, Ala.—City receives bids until June 6 for constructing asphalt-macadam pavement, cement gutters and car-track pavement.

Denton, Tex.—City and Denton county will expend \$10,000 to pave public square.

Elberton, Ga.—City will expend \$50,000 for street improvements.

Farmersville, Tex.—City will make improvements to streets, including gutters, culverts and crossings around public squares and residence section; all of concrete; cost about \$10,000.

Fort Smith, Ark.—City receives bids until June 5 for constructing concrete sidewalks.

Fort Worth, Tex.—City receives bids until June 6 for improving 14,373.332 square yards of Daggett avenue and 9680 square yards of 9th street.

Fredericksburg, Va.—Baltimore & Ohio Railroad will construct two paved driveways, one 600 feet long and 40 feet wide and the other 500 feet long and 45 feet wide.

Greenville, S. C.—City will pave section of West Washington street.

Gulfton, Miss.—District No. 2 of Harrison county receives bids until June 7 for constructing 2.8 miles of gravel road and 15.4 miles of dirt roads.

Johnson City, Tenn.—City will pave Roan street and Watauga avenue.

Knoxville, Tenn.—City receives bids until June 8 for grading, curbing, paving and guttering several streets.

Maysville, Ky.—City opens bids June 5 for macadamizing several streets; bituminous binder and concrete curb.

Morehead City, N. C.—Carteret Central Highway Co. will construct road from Morehead City to Craven county line.

Naples, Tex.—City is having surveys made preparatory to grading streets and laying concrete walks.

Nashville, Ark.—City will construct sidewalks.

Richmond, Va.—City opened bids May 29 for constructing additional granite-spall paving, granolithic curbs and gutters, vitrified brick street crossing; also scarify, resurface and regrade certain streets.

Selma, Ala.—City opens bids June 14 for constructing about 5000 square yards of brick paving on concrete foundation and about 2000 feet of granite curbing.

Springfield, Tenn.—Robertson county receives bids until June 30 for constructing 50-mile road, 30 to 40 feet wide between ditches, with crushed-stone surface nine feet wide and eight inches thick; \$150,000 is available for this work.

St. Augustine, Fla.—City will pave Orange and Saragossa streets, probably with asphalt macadam.

St. Louis, Mo.—State is considering construction of 300-mile road across Missouri from St. Louis to Kansas City.

Sumter, S. C.—City opens bids June 12 for constructing 12,000 square yards of pavement on Main street.

Terrell, Tex.—City contemplates paving section of Moore avenue with vitrified brick; 70 feet wide, with 15-foot sidewalks on each side; cost about \$38,450.

Towson, Md.—Baltimore county receives bids until June 15 for building about two miles of State-aid highway along Old Court road.

Wharton, Tex.—City will let contract June 19 for constructing three additional miles of sidewalks.

HIGHWAYS TO ASHEVILLE.

A Center of Interstate Road Plans in the South.

Board of Trade,

Asheville, N. C., May 28.

Editor Manufacturers Record:

The surveyors' outfit, including necessary camp equipage, has been received at Asheville and carried to a point 10 miles from the city in the mountains and along the line of a trail that is to be constructed from Asheville to the summit of Mt. Mitchell, whose altitude is 6741 feet above sea level. The party of surveyors, headed by Dr. Joseph Hyde Pratt, will arrive in Asheville on the first Monday in June, and immediately take up the work of surveying the route of this trail from Asheville to Mt. Mitchell, the force of graders following as closely as possible behind the surveyors, so that this trail will be ready for the use of summer tourists from the South that throng Asheville during the heated term. Progressive citizens, through a committee from the Board of Trade, has subscribed funds to complete this trail at once. On this trail will be built the Crest of the Blue Ridge Highway, a 24-foot macadam roadway extending from the top of Sunset Mountain overlooking Asheville, 1000 feet above the city, to Altapass, N. C., a distance of over 150 miles right along the very crest of the Blue Ridge mountains, at an average altitude of more than 3500 feet, and on very light grade. A company was chartered by the last Legislature to construct this road, and already about 40 miles of it has been completed on the eastern end. This highway opens up a country whose wild picturesqueness is not equaled even in Switzerland, and will prove a Mecca for tourists from all over the world. No other driveway in America can in any wise approach the magnificent grandeur that will be developed by this highway, and already many inquiries from various parts of the country are coming in requesting information as to probable time of completion and opening to the public.

The good-roads movement in the South was started in Asheville 12 years ago, when the Asheville and Buncombe County Good Roads Association was formally organized with Dr. C. P. Ambler, E. C. Chambers, B. M. Jones and others as charter members, this being the first good-roads association organized in the entire South, and through which has been disseminated great masses of good-roads literature and many other good-roads associations formed. The effect of this organization is easily seen in the hundreds of miles of good roads all over Buncombe county, nearly 100 miles of which are macadamized, and 38 miles of paved streets in the city limits of Asheville.

Indicative of Asheville's importance as the center of the good-roads movement of the South, and the metropolis of the Western North Carolina Plateau region, nearly every one of the various highways pro-

jected in the South all have Asheville as the objective point:

Greenville, S. C., to Asheville, via Hendersonville; in course of construction.

Waynesville to Asheville; in course of construction.

Knoxville to Asheville via Waynesville: Being arranged for by counties, and more than two-thirds provided for, with one-third of road already built. Buncombe county end of road complete to within two miles of Haywood county line. Haywood county at work toward Buncombe line.

Knoxville to Asheville via Marshall: Being arranged for by counties; all arranged for except through Madison county, which has promised to build road; only six more miles to complete.

Charlotte to Asheville via Mooresville, Marion, Old Fort and Black Mountain. Being arranged for by townships, and all taken care of except through McDowell county, and interested men hard at work on this piece of road.

Salisbury to Asheville via Rutherfordton, Hickory Nut Gap and Fairview. Most difficult part of this highway across mountain and through gap provided for by last Legislature, which agreed to build road with State convicts, the people along the line to house them. Balance of road nearly all provided for.

Beaufort to Asheville via Chapel Hill and Salisbury. Scout party has completed location of highway on eastern end, and party arrives at Asheville June 5 to go west and locate route. Party will be headed by Dr. Joseph Hyde Pratt, State geologist, and Mr. Varner, president of the State Good Roads Association, and will be accompanied by prominent newspaper men of the State. This road is to be built in three days, employing the services of 25,000 men from the coast to the mountains, the organization of forces being under active headway now. The days for the work to be done to be set later on, probably early fall.

Asheville to top of Mt. Pisgah (5749 feet altitude). Private road being constructed by Mr. George W. Vanderbilt, and will be open to the public. Asheville to top of Overlook, 1000 feet above and overlooking Asheville; work now in progress; construction by Mr. E. W. Grove of St. Louis and Asheville. This roadway is in the process of development of a great residential park of about 700 acres, beautifying the entire side of Sunset Mountain and the construction of an incline railway from foot of mountain to summit.

Asheville to Blowing Rock and Altapass, Crest of the Blue Ridge Highway, as indicated in first part of this paper.

Jacksonville to Asheville via Savannah, Augusta and Greenville. Various stretches of this road being connected up and improved. The run over this road from Jacksonville to Asheville made last summer by Mr. Herbert Race in two and a half days less time than had ever been made.

Charleston to Asheville via Columbia, Greenville and Hendersonville. This road to be built in a day by people all along the line; organization now being effected by McKeand of Charleston Chamber of Commerce and Wood of Spartanburg Board of Trade; date of work to be set for early fall.

Throngs of autoists are now enjoying spins over the fine roads of Buncombe county and the cool, bracing and invigorating air of these grand mountains, while the rest of the country is sweltering in the oppressive heat of the past few days.

N. BUCKNER,
Secretary.

Birmingham Good Roads Congress.

In his report of the Good Roads Congress at Birmingham last week Secretary

J. A. Rountree, who worked energetically for its success, stated that 1304 persons had registered, divided as follows:

Birmingham and Jefferson county, 362; Alabama, 783; Louisiana, 31; Mississippi, 35; Georgia, 50; Texas, 6; Kentucky, 5; Florida, 11; Tennessee, 21; South Carolina, 22; North Carolina, 2; Ohio, 12; Washington, D. C., 5; Missouri, 5; Illinois, 4; Virginia, 4; New York, 3; Maryland, 2; Washington, 1.

In his address before the convention Mr. Logan W. Page, director of the National Public Roads Office, stated that between 1904 and 1909 more than 25,000 miles of roadway in the South had been improved, making a total improved mileage there of 42,280 miles. He stated that for 1911 there is available for good roads in the South \$40,652,000.

Commenting upon the convention generally, the *Age-Herald* of Birmingham said:

"While the actual attendance on the sessions of the National Good Roads Convention at times has been disappointing, the aggregate attendance and the unquestioned enthusiasm on the subject of good roads has been all that could be desired. Hundreds of people have been in Birmingham and have attended the sessions intermittently. They have culled the things they wanted and have been benefited. Hundreds of the best people in Alabama—from all sections—have dropped in and offered their presence and encouragement to the cause. They have been coming and going all the week. It was not expected that they would all come and attend all the long sessions, enduring the heat and the never-ending flow of good, better and excellent oratory. The convention has been a success and it marks a new era in the construction of better roads in Alabama. If the convention meeting in Birmingham had done no other great work than the immediate inspiration leading to the effort to build a standard highway from Birmingham to Montgomery through six counties of the State, it would have been worth while."

Farmers to Work Roads.

Board of Trade,
Greenville, S. C., May 26.

Editor Manufacturers Record:

Under the auspices of the Board of Trade a general meeting of the farmers of the county, with over 400 representative men present, was held and a general discussion of the advisability of inaugurating a campaign for a greater Greenville county was had. The meeting decided to organize for good-road work, for corn, tomato and pig clubs. Committees were appointed, and the work is being gotten well under way.

Prizes to the value of \$500 to \$600 will be given, and it is expected that some 300 or 400 contestants will take part in the contests.

Immediately following the meeting the county supervisor ordered 100 split log drags, which have been given to the different settlements in the county. Each farmer has agreed to work the roads in front of his place, and it is expected that in this way the roads of Greenville county can be much improved and the county will be relieved of much of the expense it is now put to in its road work. Record is being kept of the roads worked, and it is the plan now to run an automobile carrying three judges over the roads of the county in the fall, when judgment will be passed on the roads and prizes given for the best pieces of roadway. When each farmer works a bit of his road he has been asked to fill out a card, which is then mailed to the Greenville Board of Trade, where the information is tabulated. Much

interest has been aroused, and already several sections of the county people are planning to have general road-working days, when the entire community will turn out and work the roads and then meet in the afternoon for a big picnic dinner at the home of the chairman. The scheme is going to mean the improvement of the roads in the county.

E. B. ADAMS,
Secretary.

Texas Trans-State Road.

G. L. Cade, chief assistant engineer the county of Dallas, Dallas, Tex., writes to the *MANUFACTURERS RECORD*:

"I have been pushing the Trans-State road for several months. At this time I have most of the counties along the proposed route interested. Some of the counties have recently voted bonds for the purpose of building good roads, others are now agitating the question of a bond issue. We are also taking the matter up with the Legislature, for the purpose of trying to get help for the smaller counties through which we pass with the proposed road. Several of the representatives have expressed themselves as in favor of such a road."

Motor Road Oiler.

Regarding an automobile truck oil distributor used on some of the roads in Baltimore county, Mr. H. G. Shirley, road engineer of the county, writes to the *MANUFACTURERS RECORD*:

"This truck belongs to the Standard Oil Co., and is operated by it. The oil is applied under pressure, which gives a very uniform distribution. The machine is so equipped that any amount of oil can be applied per square yard, and with the rapidity with which it can operate greatly facilitates the time and labor required to apply oil."

APPALACHIAN POWER COMPANY.

Capitalized at \$25,000,000 to Develop About 75,000 Horse-power in Virginia.

The Appalachian Power Company has been chartered at Richmond, Va., with a capitalization of \$25,000,000 and the following officers: President, H. M. Byllesby of Chicago; secretary, Elmer Dover; treasurer, R. J. Graf; each of Chicago; vice-president, M. A. Wells of New York. They and Robert E. Scott of Richmond are the directors. Outlining the company's plans, Viele, Blackwell & Buck, the engineers, 49 Wall street, New York, wire the *MANUFACTURERS RECORD* about as follows:

"The company owns five power sites on New River; two of these will be developed at present and transmission lines will be constructed to Pulaski, Bluefield and Pocahontas coal fields in West Virginia and to Radford, Christiansburg, Salem and Roanoke, Va. Lighting companies in Bluefield, Pulaski and several other towns have been purchased. Plans are that 30,000 horse-power will be developed at present, but the ultimate development will amount to 75,000 horse-power. Initial construction will be started immediately, and proposals for apparatus are to be received within the next 90 days. The company will be managed and operated by H. M. Byllesby & Co. of Chicago, who are also the bankers. H. M. Byllesby is president and M. A. Viele is vice-president. The hydraulic construction and transmission lines will be designed and constructed by Viele, Blackwell & Buck. A number of contracts to furnish electricity for lighting and power have already been secured. The capital has all been secured. The initial development will require \$6,500,000."

The Newport News Shipbuilding & Drydock Co. has been given the contract for two new revenue cutters.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

KNOXVILLE TO SOUTHPORT.

South Atlantic Transcontinental Reported to Have Interested French Capital.

Dispatches say that at a recent meeting of the promoters of the South Atlantic Transcontinental Railroad, held at Raleigh, N. C., before the Governor and Council of State, C. J. Lantry of Chicago announced that arrangements had been made to obtain \$11,000,000 of French capital to finance the proposition to build a railroad from coal fields in Tennessee via Knoxville, in that State, to Waynesville, Asheville, Rutherfordton and Southport, N. C. The hearing before the Governor was for the purpose of securing a force of State convicts for work on the road. It is further said that Mr. Lantry is investing \$60,000 in the enterprise.

Others present were Theodore F. Davidson of Asheville and W. E. Breece, Jr., of Brevard, N. C. The latter is quoted as saying that construction work is proceeding now in Haywood county, where it was started last December, and it is expected that the line in the western part of the State will be completed within two years. Another meeting is to be held at Raleigh, after which it will be announced whether the laborers can be secured.

Col. S. A. Jones of Waynesville, N. C., is president of the company that proposes to construct this line, which, according to a letter from Raleigh, will not immediately build through to Southport, but will connect with the Seaboard Air Line at Rutherfordton for a route to Wilmington, and possibly Southport. The work under way is at Pigeon River Gap, which is described as a vantage point in the route through the mountains. It is understood that a force of convicts will probably be furnished to work between Asheville and Rutherfordton, 42 miles, where the road will run through Hickory Nut Gap.

DRUM POINT RAILROAD.

An Old Plan Revived and May Give Southern Maryland a Direct Route.

As a result of an agitation begun by Governor Crothers of Maryland to construct a public road along the right of way of the proposed Baltimore & Drum Point Railway, upon which considerable grading was done some years ago, steps are being taken by Edward Lauterbach of New York, who has held the charter for a very long time, and others with a view to at last building the railroad. Sturgis, Anderson & Holloman, having offices in the Gaither Building, Baltimore, are active in the move, and it is said that a new corporation with \$2,000,000 authorized capital, and probably called the Baltimore & Virginia Railway Co., will be organized with L. M. Sturgis, president; C. H. Anderson, vice-president, and L. E. Holloman, secretary and treasurer. Others mentioned as interested are Martin J. Katz, representing Mr. Lauterbach; James W. Owens of Annapolis, Md.; Benjamin Watkins and James Cheston of Anne Arundel county, and J. Frank Parran of Calvert county, Maryland. H. L. White of New York is to have charge of the construction, which is expected to begin, it is alleged, by July 1. Ties are reported ordered from A. D. Riden & Co. of Woodwardville, Md., and rails from the Cincinnati (O.) Equipment Co.

There is great natural depth of water at Drum Point, and the promoters of the railroad have in view the possibility of

establishing there a tidewater harbor for large ocean-going steamers, with terminal facilities to handle freight to and from them. It is also contemplated to operate steamboats in connection with the railroad, thus affording quick communication to and from points on the lower part of the Eastern Shore of Maryland.

It is proposed to begin tracklaying at Millersville, Md., about 15 miles south of Baltimore. This will afford a direct connection with the line of the Washington, Baltimore & Annapolis Electric Railway to all points reached by it. After the line to Drum Point is constructed, if need be, the road will be continued direct from Millersville to Baltimore. The distance from Millersville to Drum Point is about 52 miles in a direct line.

ST. LOUIS TO NEW ORLEANS.

Iron Mountain Route Preparing a New Line—Frisco Will Have Traffic Pact.

The St. Louis, Iron Mountain & Southern Railroad (Missouri Pacific system), according to a report from St. Louis, where the headquarters of the company are situated, will adopt a new route for passenger as well as freight trains between St. Louis and New Orleans, following the Illinois division from St. Louis to Thebes, Ill., crossing the Thebes bridge back to Missouri and running from Illmo over the St. Louis Southwestern Railway to Paragould, Ark.; thence to Ferriday, La., over its own lines, but going over the Texas & Pacific from Ferriday to New Orleans, altogether 790 miles. This route, it is alleged, affords a maximum grade of not more than seven-tenths of 1 per cent. When the cut-off from Eudora, Ark., to Gilbert, La., is finished, the trains will run over it.

It is noted that in making preparations for operating over this route the Missouri Pacific recently acquired the Cairo & Thebes Railroad in Illinois, thus extending the Illinois division to the Ohio River. It is said that the Missouri Pacific, the Iron Mountain, the Texas & Pacific and the International & Great Northern will be practically a united system for traffic between St. Louis, the West and the Southwest. Heavy freight trains are already using the river grade route between St. Louis and New Orleans to avoid the grades in the Ozark region.

It has been agreed that the Frisco system will also have the use of the Iron Mountain line between Memphis and Baton Rouge, about 400 miles. The road will immediately be improved for heavy traffic, and it is understood that the two companies will share equally in the cost of maintenance, while the Frisco will also pay a rental in proportion to the amount of traffic sent by it over the road. The closing of this traffic agreement removes the necessity of the Frisco to build its own line practically paralleling the Iron Mountain. Both systems are expected to furnish a large amount of traffic for the new route.

KANSAS CITY TERMINAL.

Site Ready for \$5,500,000 Station Building—Bids to Be in June 15.

Concerning the proposed new union station at Kansas City, a report from there says that the site has been made ready by the graders, and that the plans and specifications for the building, prepared by Jarvis Hunt of Chicago, who is the architect for the Kansas City Terminal Railway Co., are now in the hands of contractors. It is expected that the bids will be all in by about June 15, so that construction of the edifice will begin about July 1. The outlay on this part of the big job will be about \$5,500,000, and, as heretofore related, the entire work in connection with

the new terminal will cost about \$35,000,000. The station is to be completed and in service two years hence, or in the summer of 1913.

The engineers of the terminal company, the chief engineer being John V. Hanna, will now, it is said, devote their attention to the reduction of grade on the belt line and the construction of the viaducts and subways which are necessary for the plan. W. S. Kinnear is president of the company.

New Equipment, Rails, Etc.

The Richmond (Va.) branch of the American Locomotive Co., says a report from there, will begin work immediately on the construction of 60 locomotives, of which 30 consolidations will be built for the Western Maryland, 20 Pacifics for the Southern Railway and 10 Pacifics for the Seaboard Air Line.

H. Leone Miller, president of the proposed Winnipeg, Salina & Gulf Railway, Salina, Kans., writes that the company will be in the market for all kinds of equipment and material.

The Pensacola Electric Co., Pensacola, Fla., is reported contemplating the purchase of four single-truck double-end semi-convertible cars.

The Piedmont Railway & Electric Co., Burlington, N. C., will be in the market for cars.

The Missouri Pacific's locomotive order, as announced after the directors' meeting last week, will be for 12 engines.

The Columbia (S. C.) Railway, Gas & Electric Co., says a market report, will purchase six cars through J. G. White & Co. of New York.

The International & Great Northern Railroad is reported to have given an order to the Baldwin Works, Philadelphia, for 10 freight locomotives of 120 tons each.

The Missouri, Kansas & Texas Railway is reported getting prices on 39 gondola, 34 flat and 17 refrigerator cars, besides 18 cabooses.

The Atlantic Coast Line, according to a market report, has received proposals to furnish 400 tons of bridge steel, but award is not yet made.

The Memphis Street Railway, Memphis, Tenn., is reported to have ordered two 4000-gallon pneumatic sprinklers from the McGuire Cummings Manufacturing Co., Chicago.

The Sand Springs Interurban Railway of Tulsa, Okla., is reported to have ordered a second gasoline motor car from the McKean Motor Car Co., Omaha, Neb.

The Chesapeake & Ohio Railway is reported in the market for 900 tons of bridge steel.

The Missouri Pacific Railway will purchase 40,000 tons of steel rails.

An equipment contract covering five Baldwin locomotives for the Wichita Falls & Northwestern Railway is filed at Austin, Tex.

New Railroad Projects.

Among the new railroad enterprises recently announced are the following:

Oklahoma Pacific Railroad, chartered in Oklahoma with \$6,000,000 authorized capital stock to build a line from a point on the Texas boundary west of Cheyenne, Okla., to Oklahoma City, with a branch to the Texas boundary south of Comanche county; total length, 275 miles; estimated cost per mile, \$26,800; incorporators, R. K. Kelley, L. K. Rodbyack and Alonzo Osborne of Mountain Park, and G. M. Hohl and Samuel Bretten of Hobart, Okla. This is said to be a modification of the plan to build the El Paso, Mountain Park & Oklahoma Central Railway, announced several years ago.

Twin Mountain & Potomac Railway, chartered in West Virginia to build a line from McNeil, on the Hampshire Southern

Railroad in Hardy county, to Twin Mountain, in Grant county; capital, \$100,000; incorporators, R. T. Cunningham, H. R. Heintzelman, J. M. Brownfield, Kemble White and E. A. Russell, all of Fairmont, W. Va.

Elizabethton, Milligan & Johnson City Electric Railroad, organized at Johnson City, Tenn., to construct a line about 12 miles long to connect the three places named. Preliminary survey completed and final location to be made within a month; directors, John G. Burchfield, president; W. G. Payne, vice-president; A. B. Bowman, treasurer; J. N. Edens, secretary; J. H. Smith and W. C. Burchfield.

Will Enlarge Machine Shop.

Referring to the report (mentioned last week) that his company will double its shops at Rocky Mount, R. E. Smith, general superintendent of motive power of the Atlantic Coast Line Railroad Co., Wilmington, N. C., writes to the MANUFACTURERS RECORD as follows: "We do not intend doubling as a whole. We will extend the machine and erecting shop about 200 feet, with one high erecting bay to provide for a 120-ton overhead traveling crane. In connection with the erecting shop there will be two machine shop bays of the same length and 50 feet wide each, making the shop addition about 200 feet long by 175 feet wide. It will be of steel-frame construction, with brick enclosing walls. There are no special features about the superstructure which are worthy of special mention."

Bamberg, Ehrhardt & Walterboro.

J. Aldrich Wyman, president of the Bamberg, Ehrhardt & Walterboro Railway Co., Bamberg, S. C., says that contract for construction from Bamberg to Ehrhardt, S. C., 14 miles, has been let to the Ajax Construction Co., a South Carolina corporation. The work will include two bridges, which for the present will be of wood. It is proposed to continue construction to either Denmark, S. C., which is seven miles from Bamberg, or to Johnson's Siding, four miles, to connect with the Atlantic Coast Line. The other directors are Thomas Black, first vice-president; W. M. Brabham, second vice-president; W. D. Rhoad, secretary and treasurer; W. M. Brabham, A. Price, A. M. Brabham, J. F. Carter and A. W. Knight, all of Bamberg, and H. A. Hughes of Ehrhardt, S. C. The chief engineer is F. W. Frederick of Orangeburg, S. C.

Betterments at Augusta.

Construction is reported in progress on the new power-house of the Augusta Railway & Electric Co. at Augusta, Ga., which is part of the improvement work of the company heretofore described. It will cost about \$140,000. The betterments are under the charge of J. G. White & Co. of New York, who, it is said, will have the disbursement of about \$500,000 for the company during the next year or 18 months. The construction necessary to place the wire under ground will soon be started. Ornamental iron posts are to be placed in the center of Broad street to support clusters of electric lights, and a railway extension will be made on Center street from Broad to Taylor street, and thence down to Lincoln street. Some new equipment is also to be purchased.

B. & O. April Figures.

The Baltimore & Ohio Railroad's statement of earnings and expenses (exclusive of outside operations) for the month of April, 1911, as compared with April, 1910, shows gross earnings, 1911, \$6,888,218; 1910, \$7,341,840; decrease, \$453,622. Expenses, 1911, \$4,497,077; 1910, \$5,231,

854; decrease, \$734,777. Net earnings, 1911, \$2,391,141; 1910, \$2,109,986; increase, \$281,155.

For the 10 months of the fiscal year as compared with the corresponding period of 1910, the statement shows gross earnings, 1911, \$73,165,258; 1910, \$73,034,787; increase, \$130,471. Expenses, 1911, \$52,595,865; 1910, \$50,146,379; increase, \$2,449,486. Net earnings, 1911, \$20,569,393; 1910, \$22,888,408; decrease, \$2,319,015.

Virginia Railway & Power Merger.

It is announced that the Virginia Railway & Power Co., which is to take over on July 1 the principal street railway and lighting properties at Richmond, Norfolk and Portsmouth, Va., as previously announced, will have directors as follows: Frank J. Gould, chairman; William Northrop, president; Fritz Sitterding, Henry W. Anderson and R. Lancaster Williams, vice-presidents; Guy Phillips, secretary and treasurer; Percy M. Chandler, Nathaniel A. Campbell, George H. Taylor, Frank O. Briggs, F. W. Roebing, Jr., Caldwell Hardy, Fergus Reid and James L. Sellman. Headquarters at Richmond.

A report from Norfolk says that John Blair MacAfee has resigned as president of the Norfolk & Portsmouth Traction Co., and will leave that city as soon as the merger goes into effect.

Central Carolina.

W. J. Edwards, president and general manager of the Central Carolina Railroad Co., Sanford, N. C., says that it will build a line from Broadway via Lillington to Buie's Creek, N. C., about 20 miles, including a bridge about 500 feet long. Route is level. This practically amounts to an extension of the Atlantic & Western Railroad, and the company's forces will do the work. Connection will also be made with the Raleigh & Southport Railroad. Other directors are H. P. Edwards, secretary and treasurer; Jessie Carter, J. W. Cunningham and W. H. Fitts, all at Sanford, N. C.

Staunton to Waynesboro.

It is contemplated to build an electric railway from Staunton to Waynesboro, Va., about 10 miles, and President J. M. Spotts of the Blue Ridge Light & Power Co. of Staunton is quoted as confirming a report that the line is proposed and that J. F. Cassell, engineer of the company, is preparing estimates of the probable cost of construction. Further than this nothing is officially announced, and it appears that the plans are as yet only tentative.

Railroad Notes.

A report from St. Louis says that the Missouri Pacific Railway has arranged to occupy with its offices six or seven floors in the new Barr Building, which is to be 21 stories high. A contract is reported signed and approved by the directors.

Since the organization of the Pennsylvania Railroad Employees' Relief Funds, \$30,633,920.64 have been paid out in benefits to their members. This fact is brought out in a report dated May 31 by the company, which also shows that in the month of April the benefits amounted to \$196,863.49.

A report from Richmond, Va., says that the new electric railway of the Henrico & Chesterfield Railroad Co. from West-hampton to Bon Air is being rapidly built, and the steel and concrete bridge over the James River near the country club is to be completed within a month or six weeks. The railway, which is an independent line, will be about 5½ miles long.

MINING

Crude Ores and Metals, 1908-1909.

The production of crude ores from mines in the United States in 1908 and 1909 reduced to short tons was as follows:

Ore.	1908.	1909.
Iron.....	40,301,336	57,449,584
Manganese.....	6,881	1,729
Manganiferous iron.....	22,751	18,319
Chromium.....	402	670
Tungsten.....	4,300	13,300
Titanium.....	58,427	144,593
Aluminum.....	8,991,751	9,241,827
Gold.....	642,188	513,823
Silver.....	15,502	15,502
Quicksilver.....	15	43
Tin.....	22,358,857	28,925,092
Copper.....	5,082,853	5,811,687
Lead.....	8,157,963	10,679,908
Zinc and zinc-lead.....	85,627,624	112,056,302

Comparison of the production of metals in the United States from both domestic and foreign ores, reduced to short tons, by quantities and values, is made in the following tables:

Metal.	Short tons.	Value.
Pig-iron.....	17,678,080	\$248,733,369
Manganese.....	170,200	5,587,631
Nickel.....	8,293	2,396,217
Aluminum.....	5,576	2,434,600
Gold.....	201.5	121,503,168
Silver.....	4,105.4	63,719,523
Platinum.....	741	14,250
Quicksilver.....	15	824,146
Tin.....	8	4,725
Copper.....	568,981	150,210,984
Lead.....	396,433	33,300,372
Ant. lead.....	13,629	1,264,771
Zinc.....	210,424	19,779,856
Total.....	*19,066,731.95	\$649,778,613

*Including a fraction of a ton of platinum.

Metal.	Short tons.	Value.
Pig-iron.....	28,638,883	\$411,544,773
Manganese.....	252,045	7,630,227
Nickel.....	10,958	2,927,975
Aluminum.....	17,105	6,575,000
Gold.....	209.1	126,099,632
Silver.....	4,385.5	66,514,048
Platinum.....	790	888,710
Quicksilver.....	22	13,094
Tin.....	695,510	180,832,600
Copper.....	448,112	38,537,632
Lead.....	12,896	1,231,019
Ant. lead.....	255,760	27,622,090
Total.....	*30,336,675.7	\$870,445,230

*Including a fraction of a ton of platinum.

North Carolina Mica.

Of the total value, \$337,097, of mica produced in the United States in 1910, North Carolina produced to the value of \$230,460, according to a report by Douglas B. Sterrett of the United States Geological Survey. The 1910 production came from seven States—North Carolina, South Dakota, New Hampshire, Colorado, South Carolina, New Mexico and Massachusetts—named in the order of the value of their output. South Carolina and New Mexico returned to the list of mica-producing States in 1910, no production having been reported from these States in 1909. A small output was reported from Massachusetts, which had reported no production for several years. Virginia, Alabama, New York, Georgia and Maine failed to report an output of mica in 1910, though each reported a production in 1909. The value of the production of mica in 1910 was greater by \$56,568 than in 1909, and was greater than in any other year except 1907, when it amounted to \$392,111.

The production of sheet mica amounted to 2,476,190 pounds, valued at \$283,832, an increase of 666,608 pounds in quantity and of \$49,350 in value, as compared with the output of 1909. In 1910 the largest production of sheet mica was reported from South Dakota, but in 1909 the largest production was reported from North Carolina.

The production of scrap mica amounted to 4065 tons, valued at \$53,265, a decrease of 25 tons in quantity and an increase of \$218 in value, as compared with the figures for 1909. The increased value was due to an improvement in the price of scrap mica in North Carolina, which furnished nearly three-fourths of the total production.

The value of the production of mica in North Carolina in 1910 was \$230,460, an increase of \$82,036 over 1909. The production reported in 1910 was 455,020 pounds of sheet mica, valued at \$193,223, and 3074 short tons of scrap mica, valued at \$37,237. The production of mica in North Carolina in 1910 was in Mitchell, Yancey, Macon, Jackson, Cleveland, Madison and Transylvania counties by 150 producers. In the other States the production was limited to one or two producers.

Clinchfield Development at St. Paul.

The Dravo Contracting Co. of Pittsburgh states its contract (recently mentioned) for the new mine near St. Paul, Va., for the Clinchfield Coal Corporation of Spartanburg is for sinking three shafts and one slope. Two shafts are to be 400 feet deep and the third about 100 feet deep, all to be concrete lined and of the most approved design. The slope will be about 450 feet long and lined only where necessary. This contract is to be completed within 10 months. Referring to this development, the Clinchfield Company recently advised the MANUFACTURERS RECORD that the work is to cost about \$20,000, and the daily output of the plant is expected to be 1500 tons of coal.

Granite in 1909.

Of the total amount of granite produced in 1909 in this country, valued at \$19,581,597, the New England States produced to the value of \$9,674,715. Vermont led the country with a production valued at \$2,811,744, and of the 10 leading States, Georgia, Maryland and North Carolina were the last three, producing to the value of \$843,542, \$771,224 and \$743,876, respectively.

To Develop Additional Acreage.

The Maryland Coal Co., No. 1 Broadway, New York, will develop 1500 additional acres of land at Simpson, W. Va. This new development will add 2000 tons of coal daily to the company's present output. Details of equipment have not been determined. Mining machinery proposals should be addressed to J. W. Galloway, vice-president, at the New York office.

Tennessee Coke.

Since 1880 the production of coke in Tennessee has increased from 130,609 tons to 322,756 tons annually. The latter, the production of 1910, was less than the production of 1890, which was 348,728 tons. In the following 10 years the production rose to 475,432 tons, and in 1906 it reached 483,428 tons.

Arkansas' production of lead and zinc in 1909 was valued at \$57,144.

Concrete Steel Bridge at Richmond.

Mayor Richardson and the committee on streets at Richmond, Va., awarded the contract for building the new reinforced concrete bridge at the site of the old Mayo bridge across the James River to I. J. Smith & Co. of Richmond, on plans drawn up by the Concrete-Steel Engineering Co., Park Row Building, New York, the price being \$224,734. This bridge is to be built on the Melan system, and with "Diamond" bars. It is to have a concrete railing and combination trolley and light poles of reinforced concrete. There will be 18 arches, each of 71-foot span, with 4 abutments and 16 piers. The total length of the bridge is to be 721 feet, with a roadway of 44 feet and two sidewalks of 8 feet each. Provision is made for water and gas mains and three conduits for power, police and telephone wires. The bridge is designed to carry 15-ton electric cars, and will be provided with two tracks.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Texas Prison Mill.

The Board of Prison Commissioners, Huntsville, Tex., has awarded contract to the Lowell (Mass.) Machine Shop through its Southern representative, John Hill of Atlanta, Ga., for the additional machinery mentioned last week. This equipment will include 20 looms, beater breaker, cards, lap rods, roving cans, grinding outfit, drawing frame, warper, beams, slasher, kettle and track, the estimated cost being \$6300. The contract was awarded under the supervision of Prof. J. B. Bagley, director of the textile department of the Agricultural and Mechanical College of Texas. The prison mill is operated by convict labor, and manufactures cloth for making towels, sheets, uniforms, etc., for the convicts. Its new machinery is intended to improve the quality of the cloth.

Altavista Cotton Mills.

The Altavista (Va.) Cotton Mills, lately mentioned, has elected new officers as follows: President and treasurer, John E. Lane; vice-president and general manager, R. L. Cumbock; secretary, A. G. Bell. This company has completed about 48 per cent. of construction on its plant, and expects to complete the remainder by August 1. Its mill building is to be 127x350 feet, half of this being two stories high for the carding and spinning department, and half being one story high for the weaving department, of slow-burning mill construction. The machinery will include 12,800 spindles and 292 looms, all contracted for.

Will Double Capacity.

The American Net & Twine Co. of Aniston, Ala., and East Cambridge, Mass., will double the capacity of its Aniston plant. It will erect an addition to the main building, a 60x300-foot warehouse of brick construction, and 20 cottages for operatives. Machinery will be installed to double present capacity of plant, now operating 10,000 ring spindles and accompanying machinery. It is reported that the cost will be about \$150,000. This company was reported last week as planning an increase of its equipment.

Increasing St. Pauls Mill.

The St. Pauls (N. C.) Cotton Mill Co. will increase its machinery 36 per cent., not 50 per cent., as stated last week. Its new equipment will include 8 spinning frames with 1940 ring spindles, 12 frames with 72 spindles, universal winders, 368 spindles, speeder, and 4 cards. This machinery is expected to be installed by September 1. It will cost about \$20,000. At present the company has 6000 spindles on the production of knitting yarns.

Saxon Mills Adding Machinery.

The Saxon Mills of Spartanburg will add two pickers, six cards, two roving frames and two spinning frames, for which contract has been awarded. This installation will increase the company's equipment to 62 45-inch cards, 40,600 spindles and 1000 looms, the output being print cloth and fancy cottons. The pickers will be furnished by the Kluson Machine Shop

of Lowell, and the cards by the Saco-Petee Company of Newton Upper Falls.

Improvements Costing About \$20,000

The Swift Manufacturing Co., Columbus, Ga., has awarded contract for constructing two additions, as stated last week. These additions are to the company's dye and picker-house, and, with machinery, will cost about \$20,000. This company operates 18,186 ring spindles, 414 narrow looms, 32 broad looms, etc., by electricity on the production of plaids, cottonades, etc.

Guadalupe Mill Addition.

The Guadalupe Valley Cotton Mills of Cuero, Tex., will install 5000 spindles in the addition mentioned last week. This addition will be 100 feet long by 60 feet wide, of mill construction. The D. J. Hayes Company of Houston is the engineer in charge, and John Hill of Cuero is the architect.

Carr Mills Organized.

The Carr Mills of Suffolk, Va., has been organized to establish a knitting plant; G. Lloyd Bell, president; W. C. Cross, vice-president; F. A. Holladay, secretary; E. A. Everett, treasurer; J. O. Carr, general manager and superintendent; capital stock \$15,000, with privilege of increasing to \$50,000.

Increasing Capital Stock.

The Middleburg Mills of Batesburg, S. C., has amended charter to increase capital stock from \$200,000 to \$300,000, as was recently proposed. This company has 9728 ring spindles, 310 wide and narrow looms, etc., for manufacturing tickings, etc.

Sheeting for Bags.

The Strickland Cotton Mills, manufacturers of standard sheetings, Valdosta, Ga., have recently sold to various bag manufacturers 2,750,000 yards of brown sheeting, light weight, which are to be sent to bleacherries during the next 10 weeks.

Adding 1000 Spindles.

The Pickens (S. C.) Mills (not the St. Pauls company, as erroneously stated last week) will add the 1000 spindles for which contract was awarded to the Mason Machine Works of Taunton, Mass., and Charlotte, N. C.

Textile Notes.

The Fidelity Manufacturing Co. of Charlotte has purchased and installed the additional looms mentioned last week. Fifty looms were ordered.

The Eureka Manufacturing Co., Lincoln, N. C., has added two sets of Smith & Furbush woolen cards and a 180-spindle twister double cylinder.

The Monarch Mills of Dallas, N. C., will add four spinning frames and one card. This company has 5000 ring spindles, 11 cards, etc., for manufacturing hosiery yarns.

The Galveston (Tex.) Waste Mills has been sold to Leonard Joseph of the Phoenix Iron & Steel Co. of Galveston, and it is reported that he will visit Europe to purchase additional machinery for the plant.

Messrs. T. J. Patrick, S. W. Patrick and J. W. Smith have purchased the Bowling Green (S. C.) Knitting Mills. This property includes mill building, 32½ acres of land, knitting machinery, etc.

The Hamburger Cotton Mills, Columbus, Ga., awarded contract to the Crompton & Knowles Loom Works of Worcester, Mass., for the additional looms mentioned last week. These 51 new weaving machines have been received and are now being installed.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

National Lumber Manufacturers.

The National Lumber Manufacturers' Association in session last week at Chicago, elected the following officers:

President—Major Everett G. Griggs, Tacoma, Wash.; Pacific Coast Lumber Manufacturers' Association.

Vice-President—R. H. Vansant, Ashland, Ky.; Hardwood Manufacturers' Association of United States.

Vice-President—J. B. Conrad, Glenwood, Fla.; Georgia-Florida Sawmill Association.

Vice-President—R. H. Downman, Houma, La.; Southern Cypress Manufacturers' Association.

Treasurer—J. A. Freeman, St. Louis, Mo.; Yellow Pine Manufacturers' Association.

Board of Governors—William Irvine, Chippewa Falls, Wis., Northern Pine Manufacturers' Association; W. C. Landon, Wausau, Wis., Northern Hemlock & Hardwood Association; C. A. Bigelow, Bay City, Mich., Michigan Hardwood Association; R. M. Carter, Sardis, Miss., Hardwood Manufacturers' Association of the United States; John M. Gibbs, Norfolk, Va., North Carolina Pine Association; F. E. Waymer, Palmyra, Fla., Georgia-Florida Sawmill Association; J. B. White, Kansas City, Mo., Yellow Pine Manufacturers' Association; A. T. Gerrans, Houma, La., Southern Cypress Manufacturers' Association; J. P. McGoldrick, Spokane, Wash., Western Pine Manufacturers' Association; J. H. Bloedel, Bellingham, Wash., Pacific Coast Lumber Manufacturers' Association; W. C. Miles, Globe, Wash., Southwest Washington Manufacturers' Association; D. E. Skinner, San Francisco, Redwood Association; George X. Wendling, San Francisco, Pacific Coast Sugar and White Pine Association; Edward Hines, Chicago, Ill. (ex-officio).

G. M. Davis & Son Incorporate.

Messrs. G. M. Davis & Son of Palatka, Fla., for more than 20 years engaged in the manufacture of cypress tanks, have incorporated their enterprise under the title of the G. M. Davis & Son Company, with a capital stock of \$40,000. H. A. Davis is president; F. S. Milne, vice-president; R. H. Cooper, secretary-treasurer. Mr. Milne goes to Palatka from Batavia, Ill., where he has for years been manufacturing windmills, tanks and tank towers. He will be manager of the Davis factory. The MANUFACTURERS RECORD has frequently referred to the Davis plant, which is fully equipped, and at times has as much as 1,000,000 feet of seasoned cypress in stock with which to fill orders. The main factory building is 64x154 feet, and has a 42x56-foot wing, while the iron-working building (where tank hoops and bands are made) is 40x75 feet. There is also an office building. Davis cypress tanks are shipped to all parts of the United States and to many foreign countries. The company's facilities provide for a daily output of over 100,000 gallons capacity.

Big Cargo of Lumber and Ties.

Referring to a shipment of lumber and ties now being loaded at Newport News, the *Virginian-Pilot* of Norfolk says:

"Far out of the ordinary run of commerce across seas, from one country to another is the cargo the little British bark *Lovisa* is loading at Newport News. She is taking on 15,000 railroad ties, cut in the mountains of Kentucky for Montevideo.

Besides the ties, the ship will carry 150,000 feet of lumber to the same destination. This is the first time in the history of exports from Virginia that this class of freight has ever been taken on the 6500 mile trip to the east coast of South America."

Massee & Felton's New Mill.

Referring to its proposed new plant, the Massee & Felton Lumber Co. of Macon writes to the MANUFACTURERS RECORD as follows: "Our new sawmill plant will be located in the city of Macon, with a daily capacity of 40,000 feet mixed hardwoods. The mill will be 42x160 feet, with mill construction throughout. The contract for mill building, also contract for sawmill machinery, has been placed. Jones Bros. of this city have charge of the erection of the plant, and Prescott Company, Menominee, Mich., have contract for the machinery."

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

A Letter from Paris.

Em. Rosenfeld, Rue D'Aboukir, 97, Paris, France, writes to the MANUFACTURERS RECORD:

"The articles that might interest our market are leather, leather imitation, oil-cloth, shoes, teeth, and in general all kinds of articles of common use, all at prices to compete with those of Germany. American firms which desire to enter into business relations are required to offer articles at lowest prices possible in order to avoid loss of time in correspondence. I undertake business transactions on commission and for the sole agency. Of course, there are some articles I could do for my own account. Further, you would oblige me by inquiring for following articles and ask respective firms to send me patterns, with lowest quotations: Stephen C. Plant, Brookline, Mass., tire remover; Oscar Falkenwalde, Baltimore, Md., anti-slip device for wheels; Harriet E. Nickle, Earlville, Ill., combined underwaist and corset. I should also be disposed to selling cinematograph films."

Iron, Reinforced Concrete, Etc.

Raoul & Albert Engelhard, Caixa do Correio 200, Para, Brazil, write to the MANUFACTURERS RECORD:

"Iron is now coming largely into use in this country in the manufacture of agricultural implements, for elevators, building of houses, walls and roofs in the shape of galvanized sheet iron, etc. Material of this kind pays no import duty here. We therefore ask you to put us in communication with houses engaged in this line and having them send us their catalogues. We would also like you to give us the addresses of factories making sheet iron covered with asbestos for use in the construction of roofs and partition walls. All other manufacture of iron for reinforcing cement construction also interests us. As it is quite possible that after a little while a corporation may be formed here in our city for the purpose of erecting buildings of reinforced cement, we would appreciate a list of addresses of people engaged in manufacturing the materials for this work."

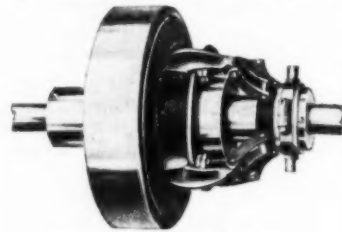
MECHANICAL

The Electro Clock.

A self-winding clock that requires little attention of any kind, that is as inexpensive as the average key-winding clock and made with the same styles of cases as other clocks, is manufactured by the Electro Clock Co., 500 N. Calvert street, Baltimore. The simplicity of the works and one form of case and dial are shown in the accompanying illustrations. There are only four wheels. The small weight to the right in Fig. 1 takes the place of springs in the ordinary clock.

The motive power is supplied by two ordinary dry galvanic cells, which at regular intervals automatically raise the weight. This weight descending imparts

the metal and wood types of pulleys in general use, and claimed to eliminate some of the disadvantages peculiar to the universal employment of one or the other of



THE POSITIVE CLUTCH.

these forms. These are the Positive pulleys, and are of an entirely new design and of the combination construction, consisting of a split wood rim built up by a special process, which assures absolute

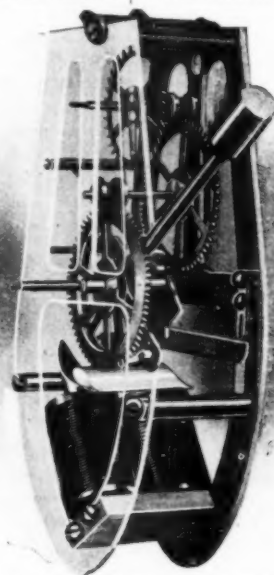


FIG. 1.—MECHANISM OF ELECTRO CLOCK.

through a series of gear wheels a steady motion to the hands of the clock. The amount of current required is small, and the reserve power of the cell is only drawn upon for one-twenty-fifth of a second in every 10 minutes. The length of time the clock will run depends on the life of these cells, which is guaranteed to be from one to two years. New cells can be installed by inexperienced persons without stopping

rigidity, of segments of kiln-dried maple, rendered impervious to moisture and unaffected by extreme temperatures; arms of annealed, cold-drawn steel tubing, pressed into a ribbed shape calculated to give lightness with maximum strength, and a split, malleable iron compression hub, into which are inserted interchangeable cast-iron bushings. The manufacturer claims for these pulleys the following points of merit: First, lightness, being actually



FIG. 2.—OFFICE CLOCK.

the clock, and at a very small cost. This electro clock would seem to fill the demand for an accurate timepiece for home or office, in which all that is necessary is to start it and renew the galvanic cells every year or so.

Improved Transmission Appliances.

A line of pulleys, ranging in commercial stock sizes from 12x3 inch to 120x48 inch, and embodying the best features of both



THE POSITIVE PULLEY.

lighter than an all-wood pulley of corresponding size; second, a strength and durability equal to that of a steel pulley; third, low windage, due to the simplicity of the arm arrangement; fourth, the 50 per cent. greater efficiency of belt contact on a wood rim over that on a metal rim, and a compression on the shaft that is simply positive.

The same manufacturer has also developed a complete line of Positive clutches. This clutch, as well as the company's pulley, is fully protected by American and foreign patents. The essential improvements and advancement in the design of the clutch lies in a combined utilization of

both the friction and jaw principles. The clutch may be applied to coupling shafts of any speed against full load. First, the frictions are thrown in, and when the driven shaft attains the speed of the driver the jaws engage and transmit the power, the frictions then reversing. Thus this clutch is also simply positive and has a universal latitude of adaptability. See accompanying view of the Positive pulley and clutch.

For over a year these pulleys and clutches have been in use in numerous Canadian plants, where they have met with an enthusiastic reception and with such unprecedented success under diversified conditions that the manufacturer was influenced to establish an American works. The products are now being manufactured in a newly-equipped three-story plant by the Positive Clutch and Pulley Works, 30-32 Lansing street, Buffalo, N. Y. The company is also developing an entire line of improved transmission appliances, marine reverse gears, etc.

New Locking Feature.

The Western Electric Co. of Hawthorne, near Chicago, and 463 West street, New York, has placed on the market a new "Improved Buffalo Grip," with a special lock

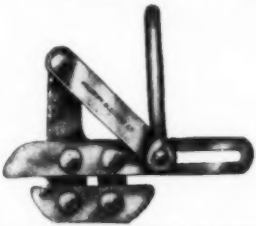


FIG. 1.—NEW LOCKING FEATURE.

ing feature. In accompanying Fig. 1 the new grip is shown with the jaw held open by the locking device. A turn of the handle locks the jaw in any position and enables the lineman to easily and quickly insert the wire in the grip. When the han-



FIG. 2.—NEW LOCKING FEATURE.

dle is pushed down, as illustrated in Fig. 2, the wire is held in a tight grip.

The "Improved Buffalo Grip" is made in various sizes for both bare and insulated wire, and can be supplied both with and without pulleys.

Pittsburg Standardized Reinforcement.

Engineers, contractors, architects and others interested in improvements in building construction will find their attention attracted to the two accompanying views of Pittsburg standardized reinforcement, complete details of which are stated and illustrated in a booklet issued by the Pittsburg Steel Products Co. of Pittsburg. From the booklet is taken the following:

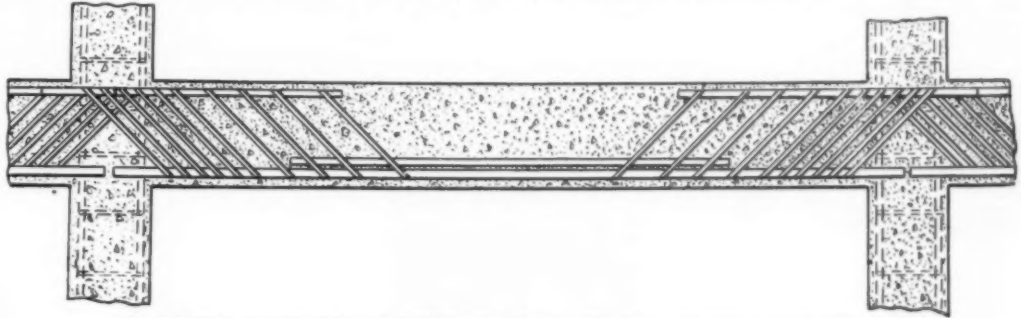
"The specific structural requirements of a standard unit frame in a reinforced concrete construction are a frame designed with each of its members located and absolutely fixed in their correct theoretical positions to provide for all direct and secondary stresses arising in a beam subjected to bending.

"A frame permitting of the same definite and simple design of its members for all given loads and spans as is possible in structural steel work for bridge truss and roof truss.

"A frame in which the sectional area of each member is maintained in its entirety. The process of forming the frame not re-

ducing the area of any member. An area of bar definitely fixed. No sheared bars, no wire, no sheet steel shall enter its fabrication.

"A frame wholly composed of rectangular shapes of solid steel bars, electrically welded together with an area of weld 80 per cent, in excess of area of smallest bar at point of weld. A connection of strength far in excess of ultimate tensile strength of smallest bar. A construction assuring



PITTSBURG STANDARDIZED REINFORCEMENT. SECTION GIRDER CONSTRUCTION.

the absolute rigidity of the connections of each of its members. Insuring against slip of shear bar and stress.

"A frame adaptable to the design of any structural work; not a type compelling special detail or methods of design for its use.

"A frame once placed in forms, supported on its underside by steel clips resting on the bottom of form, cannot be displaced during any operation of the pouring of the concrete. Always in sight in its correct position. Cannot be lost in beam or number as surplus required material upon site of work upon completion of building.

"Pittsburg standardized reinforcement fulfills each of the above requirements, and simply represents—

"A frame combining all the features of accuracy of design and fabrication and certainty of work attainable at the present time only in structural steel work. Heretofore never attainable, in the same sense, in reinforced concrete construction.

"A frame which has made possible less width of concrete beams, thereby decreasing quantity of concrete and form work. Eliminates all features of labor common to loose bar systems and establishes a new plane of economy in design and erection of reinforced concrete work.

"A frame with shear bars independent of adhesion of concrete; economical in main tension bars; areas economical with-

tion shipped in numbers packed closely together, affording no possibility for bending or distortion in transportation.

"A frame prepared for immediate placement in form upon arrival at site of work. No bending of bars, no twisting of frame, no arrangement of wires, no bending of stirrups necessary to fit frame for placement. A simple unit steel truss.

"A frame placed in the work as simply and accurately as is possible with steel

and lengthens the time in service before cleaning becomes necessary.

If continuous operation is necessary a by-pass, with or without a second strainer, should be installed.

The service given for many years by these strainers in connection with air-washing apparatus made by the Buffalo Forge Co. has induced this company to place the strainer on the market for general service.

Buffalo Strainers.

For removing foreign matter from feed water, water supply and similar systems, a strainer that differs in many ways from

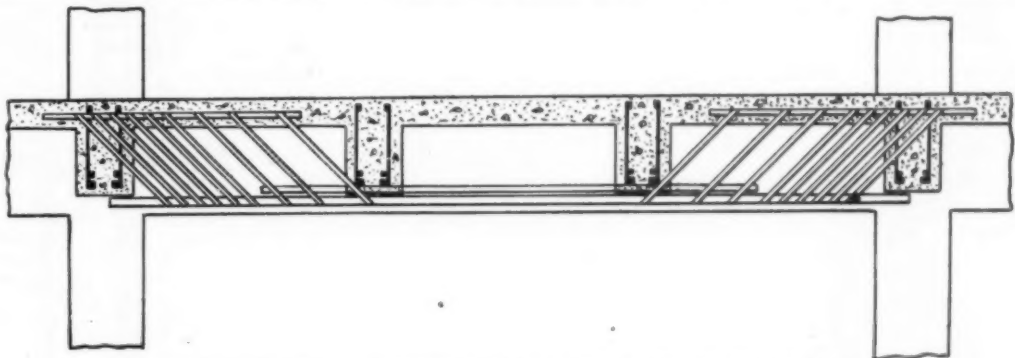


BUFFALO STRAINER DISASSEMBLED.

the usual type has been placed on the market by the Buffalo Forge Co. of Buffalo, and called the "Buffalo Strainer." A feature of this new strained is its simplicity, which can be readily seen by the accompanying illustration. It consists of only four parts—the body, basket, top and clamp. To clean the strainer is but the

pression against it. At the opposite end of these ribs is an opening through which to remove the dies by unscrewing the handle.

To use the spring pipe-threader, the pipe to be threaded is passed through the guide in the usual way and the end placed almost even with the die. The advancing handle



PITTSBURG STANDARDIZED REINFORCEMENT. GIRDER AND FLOOR BEAM FRAMING.

in 1 per centum; made from open-hearth steel of standard specification; develops 25 per centum greater strength than loose bars.

"A frame laid out from carefully-made drawings, approved by architect or engineer, and assembled upon the floor of a fabrication shop with all of its parts accurately measured with steel tape. A frame placed rigidly upon the table of a welding machine permitting of no possible displacement of members during the process of welding.

"A frame properly marked for identifica-

work of two minutes, and is done by loosening and removing the clamp and cover and taking out the basket and cleaning under a faucet.

The basket, which is the vital part of every strainer, is made of fine mesh brass screen, soldered to a brass "former" or top piece, and stiffened, both horizontally and vertically, by strong brass strips and bands. It is made unusually large to decrease the resistance offered to the flow of water, the minimum area allowed being fifteen times that of the connecting pipe. This also increases the effectiveness of the strainer

is then screwed up tight. This pinches the die on the pipe, the strain being taken up by the spring. The threader is then ready to be rotated, and as the turn is made the teeth are constantly pinching and cutting their way down to a full standard thread. As there are four lands on the die, eight distinct cuts have been made in two revolutions, and a full standard thread has been made. The dies can be changed very quickly without using any tool. But one oiling is necessary, as the oil has not sufficient time to run off, and it is claimed that the cutting is done so

quickly that the die does not absorb sufficient heat to raise the temperature, which saves the temper of the dies. This threader is handy for use in corners, as a complete oil has not sufficient time to run off, and forth movements without requiring a full revolution. Crooked threads on hot-water and steam pipes can be easily made with this spring pipe-threader, and the spring



FIG. 1.—SPRING PIPE THREADER.

saves the die from injury to which it is ordinarily subjected in such use. In the large sizes a 10-inch pipe may be threaded by hand without gears or ratchet.

The spring pipe-cutter is somewhat similar in construction to the threader, and will cut a three-quarter-inch pipe in one revolution or a one-inch pipe in two revolutions, and larger sizes in proportion. The spring saves the cutter-wheel by yielding to hard spots encountered. The spring pipe-threaders are made in six sizes and the cutters in eight sizes.



FIG. 2.—SPRING PIPE CUTTER.

lutions, and larger sizes in proportion. The spring saves the cutter-wheel by yielding to hard spots encountered. The spring pipe-threaders are made in six sizes and the cutters in eight sizes.

New Ventilating Device.

The necessity for pure air is being more fully and more widely recognized every day. There is, therefore, no need for the

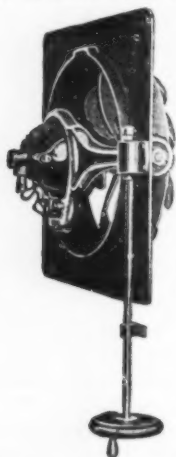


FIG. 1.—VENTILATING OUTFIT.

manufacturers of ventilating devices to "create a demand;" it already exists, and their problem is simply to convince their clientele that they are prepared to meet

this demand in a manner calculated to give best results with minimum expense.

A new and unique ventilating outfit is illustrated herewith. It is designed for placing simply and inexpensively into top sashes of windows, transoms or ends of skylights. It includes 12½-inch motor-driven "Ventura" fan, cast-iron housing, cut worm-gear reversing mechanism, rod, bearing and handle and is furnished complete, as illustrated in Fig. 1, ready for connection to plug or ordinary lamp socket. Fig. 2 illustrates outfit adjusted for supplying fresh outdoor air. The ingenious reversing mechanism makes it possible to discharge the air straight ahead, upward toward the ceiling, downward to-

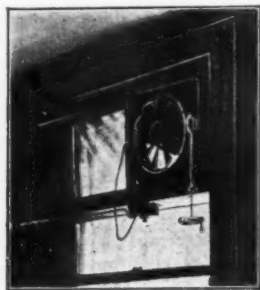


FIG. 2.—VENTILATING OUTFIT.

ward the floor, or at any intermediate location. Pure, invigorating air introduced under slight pressure can be supplied without direct draft or directly onto occupants at will. A simple turn of the hand-wheel (Fig. 1) reverses the outfit, so that it exhausts from the room, thus providing for absolute ventilation by complete air change. Figs. 2 and 3 illustrate the simplicity of installation. To conserve the lighting effect, and add to the appearance, the filler which accommodates the ventilating set can be glazed, as shown in Fig. 3. The electrical connection can be made from nearby plug or ordinary lamp socket.

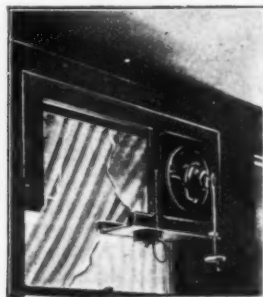


FIG. 3.—VENTILATING OUTFIT.

Any carpenter or millwright can install the outfit at small cost. This device, known as the Ventura electric ventilating set, is being marketed by the American Blower Co. of Detroit.

Improved Cincinnati Switch Stand.

Recently there has been patented an improved switch stand that will interest people who have use for such a device. See accompanying illustration. This stand is manufactured by the Cincinnati Frog & Switch Co. of Cincinnati, which says:

"While we make a specialty of steam and electric railroad equipment, we also manufacture light rail equipment for use in coal mines, etc. Coal-mine turnouts are frequently laid where the ground or bed is soft; as a result the weighted lever of the ordinary ground throw is frequently covered with mud. The new stand has a vertical lever, which is always in sight and easy to operate. The weight is adjustable, and can be raised or lowered on the lever to suit conditions. The stand throws parallel with the track. One great advantage in using this stand is that in mines having a motor haulage system the operator of the motor can when running into the face

of a switch equipped with this stand reach out and throw the lever without leaving his position. When running in the oppo-

As will be seen from accompanying view, all parts of this outfit are easily accessible for inspection. The unit can be



IMPROVED CINCINNATI SWITCH STAND.

site direction or trailing the switch the stand works automatically."

Buffalo Sump Pump.

A sump or pit pump that has several interesting details of construction has been placed on the market by the Buffalo Steam Pump Co. of Buffalo, N. Y. In providing for positive and copious lubrications of the bearings a unique method is used. An oil reservoir is bolted oil-tight to the shaft just below the bearing, and yet encloses the lower part of the bearing. This whirling oil chamber carries the oil by centrifugal force to the inside periphery of the reservoir. Here the oil is picked up by the feed pipe projecting from the lowest



BUFFALO SUMP PUMP.

part of the bearing. This pipe is bent so that the opening faces against the revolving oil. The speed of rotation develops pressure enough to force the oil to an upper chamber, whence it flows downward over the bearing. A self-aligning, ball-bearing thrust, oiled as above described, carries the weight of the moving parts. The shaft below the cover is enclosed, protecting it from action by sump water and fouling by waste and stringy matter in the sump pit.

Cement Plant for Chattanooga.

It is reported that C. E. James of the Chattanooga Estates Co., Chattanooga, has arranged with Chicago capitalists for the construction of a big Portland cement plant on his company's land in the Chattanooga district. The plant is said to be planned for a daily capacity of 9000 barrels and to be driven by electricity transmitted from the water-power development of the Chattanooga Tennessee River Power Co. at Hales Bar, below Chattanooga.

Daily Capacity of 35,000 Feet.

The Cottingham plant, recently burned at Cartersville, S. C., will be rebuilt by T. O. Evans and J. W. Carter of Maxton, N. C., who have been operating it as Carter & Evans. They may incorporate after the new equipment is in position. The new plant will have a daily capacity of 35,000 feet of lumber, and a seven-foot single-band mill has been purchased for it.

Wooden-Box Machinery.

C. A. Rose, 8 Lall Bazar, Calcutta, India, writes to the MANUFACTURERS RECORD:

"With regard to introducing American goods in India, at present I want an automatic box-making machine (wooden boxes), with full particulars as to how it is worked, cost, etc."

An attractive pamphlet dealing largely with the great artesian mineral well at Guthrie, Okla., is being circulated by the Chamber of Commerce of that city. The city is now erecting at the well a municipal bathhouse to cost \$100,000.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as "positive information." If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

"In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned."

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription for the contract period to the Daily Bulletin is included.

BRIDGES, CULVERTS, VIADUCTS

Ark., Fort Smith.—Fort Smith District Quorum Court appropriated \$10,000 for construction of Plateau free bridge; contemplates either purchasing or building bridge, and will also consider erection of pontoon bridge.

Fla., Orlando.—Orange County Commissioners will receive bids until July 3 for construction of steel swing bridge over west branch of St. John's River and wooden swing bridge across eastern branch of St. John's River at Geneva Ferry (recently noted), at Sandford, Fla.; B. M. Robinson, Clerk of Board. (See "Machinery Wanted.")

Fla., Tampa.—City is preparing to issue \$100,000 of bonds for erection of proposed bridge over Hillsborough River at Lafayette St.; Frederick T. Warren, City Engineer; D. B. McKay, Mayor. (See "Machinery Wanted.")

Ky., Lexington.—Purcell-Lexington Toll Bridge Co. awarded bridge contract to Central States Bridge Co., Indianapolis, Ind.; Andrew Allen, Chicago, Ill., consulting engineer. (Recently noted incorporated with \$100,000 capital stock by G. H. Parker and others.)

Ky., Louisville.—Board of Public Works awarded contract to National Concrete Co., Indianapolis, Ind., at \$11,510 to construct Underhill St. concrete arch bridge over Beargrass Creek.

Ky., Owensboro.—E. F. Wheaton, fiscal agent for Western Kentucky Electric Railway Co., First National Bank Bldg., Owens-

boro, Ky., advises that recently noted bridge across Ohio River between Owensboro and Rockport, Ky., is in charge of H. U. Wallace, Marquette Bldg., Chicago, Ill.

Ky., Scottsville.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., will, it is reported, construct steel bridge with reinforced concrete piers over Bays Fork Creek.

La., Clio.—Maurepas & Northern Railway, J. R. McKenzie, chief engineer, Adrian, Minn., will, it is reported, construct four steel bridges.

Mo., Joplin.—Joplin Road Commissioners will construct bridge on Scotland Rd. east of Dueneburg; steel framework; concrete floor; cost \$2500.

N. C., Broadway.—Central Carolina Railroad Co., W. J. Edwards, president and general manager, Sanford, N. C., will erect bridge about 500 feet long in connection with proposed 20-mile road from Broadway to Bule's Creek, N. C., via Lillington, N. C.

S. C., Bamberg.—Bamberg, Ehrhardt & Walterboro Railway Co., F. W. Frederick, chief engineer, Orangeburg, S. C., will build two wooden bridges in connection with 14-mile line from Bamberg to Ehrhardt, now under construction.

Tenn., Ripley.—Lauderdale County Commissioners awarded contract to Joliet Bridge & Iron Co., Joliet, Ill., at \$4800, to construct 8 bridges. (Lauderdale county recently stated to construct 60 steel bridges to replace structures destroyed by flood.)

Tex., Beaumont.—Jefferson county will construct seven-span wooden bridge on crosscut pile foundation over Alligator Bayou; open bids June 7. James F. Weed, County Engineer.

Tex., Houston.—City, H. B. Rice, Mayor, is advertising bids to be received until noon July 3 for construction of 1650-foot reinforced concrete viaduct over ship channel; specifications, etc., obtainable from F. L. Dormant, City Engineer; structure recently fully described and previously noted. (See "Machinery Wanted.")

Va., Lynchburg.—Southern Railway, D. W. Lum, chief engineer, Washington, D. C., awarded contract to Stewart & Jones, Rock Hill, S. C., to construct viaduct at Bedford Ave.; structure to be of reinforced concrete; 100 feet long; 40 feet wide.

Va., Norfolk.—The Ferries Co., R. E. Jordan, president, will repair Chestnut St. bridge, damaged by fire; loss \$3000 to \$4000.

Va., Rocky Mount.—Franklin County Board of Supervisors appointed committee, consisting of J. H. Ferguson, W. D. Haynes and C. M. Turner, to receive proposals for construction of bridges over Pigg River at Haynes' Ford and over Chestnut Creek in Franklin county; iron bridges with piers; bids received June 24 at Rocky Mount, Va. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Ala., Brewton.—The Terry Company will erect brick building to be used as packing-house for shade tobacco; steam fittings.

Ky., Worthville.—Worthville Canning & Milling Co. incorporated with \$10,000 capital stock by Sam E. Booth, Clinton Poliard, Clarence L. Carlton and others.

La., St. Bernard.—Lopez & Dukate, New Orleans, La., will, it is reported, establish shrimp cannery.

Tenn., Nashville.—Neuhoff Abattoir & Packing Co. will rebuild on enlarged scale plant at 1310 Adams St., North Nashville, burned at loss of about \$10,000.

Tex., Comanche.—Comanche County Truck & Fruit Growers' Association will erect cannery.

CLAYWORKING PLANTS

Ky., Wickliffe.—Stoneware and Tiling—Clay Product Co., J. A. Hines, president, will purchase and install machinery costing about \$5000 for manufacture of stoneware, tiling, etc.; incorporated with \$10,000 capital stock; has purchased buildings. (Was recently noted under "Miscellaneous Factories.") (See "Machinery Wanted.")

Miss., Brookhaven.—W. H. and John E. Seavey, W. D. Davis, S. E. Moreton, C. B. Perkins and others acquired brick plant of Seavey Bros. and will install hydraulic pressed brick machinery.

Miss., Gulfport.—Brick—Improved Brick & Stone Co., F. Kees, president, has purchased additional machinery for 10,000 daily capacity of pressed brick. (Recently noted.)

Tenn., Graysville.—Roofing Tile, etc.—Dixie Clay Products Co. incorporated with \$100,000 capital stock and elected John S. Spence president, Alvin L. Spears vice-president and J. W. Abel treasurer; establishing plant to manufacture roofing tile, flower pots, facing brick, terra-cotta, turpentine cups, etc.; cost of initial equipment previously noted as from \$40,000 to \$45,000; Will H. Fox, manager. (See "Machinery Wanted.")

Va., Waverly.—Brick, Building Blocks, etc.—W. M. Carpenter purchased 100 acres containing sand and gravel deposits, and will manufacture cement, brick, building blocks and tile.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Birmingham-Winston Coal Co. incorporated with \$2000 capital stock; D. B. Lightner, president; R. G. Slocumb, vice-president; A. F. Kummer, secretary-treasurer.

Ky., Hopkinsville.—Dixie Coal Co. incorporated with \$100,000 capital stock by Frank E. Mohr, Columbus, O.; Frank G. Hoge, Nortonville, Ky., and T. F. Callard, Hopkinsville, Ky.

Ky., Nortonville.—Dixie Coal Co. incorporated with \$100,000 capital stock by F. G. Hoge of Nortonville, E. F. Callard of Hopkinsville, Ky., and F. E. Mohr of Columbus, O.

Ky., Providence.—Luton Coal Co. incorporated with \$100,000 capital stock; president, S. K. Luton; vice-president, R. W. Hunter; treasurer, James E. Morgan. (Late-ly stated to have secured option on 500 acres coal land.)

Okla., McAlester.—Pittsburg Coal & Mining Co., J. B. Cavanagh, president, will consider \$30,000 bond issue.

Va., St. Paul.—Dravo Contracting Co., Pittsburg, Pa. (recently noted as contractor for opening of mine shaft for Clinchfield Coal Corporation, Spartanburg, S. C.), states contract includes sinking of three shafts and one slope; two shafts 400 feet deep; third about 100 feet deep; all concrete lined; slope approximately 450 feet long, and lined where necessary; work to be completed within ten months.

W. Va., Charleston.—Crown Hill-Kanawha Coal Co., Box 939, incorporated with \$50,000 capital stock; J. Gluck, president and treasurer; Leo Schaffer, secretary; J. T. Lightner, manager; continues operation of equipped mine.

W. Va., Quick.—Standard Kanawha Coal Mining Co. incorporated with \$200,000 capital stock by T. A. Laysan of Quick, Maurice T. Miller, Carl Lorenz, Ronald P. Gleason, all of Scranton, Pa., and others.

W. Va., Panther.—Lathrop Coal Co., recently noted (under Welch, W. Va.) incorporated with \$150,000 capital stock, will develop 500 acres; electrical machinery; daily output, 1000 tons; W. A. Lathrop, president; William Leckie, vice-president and manager; A. G. Edwards, secretary-treasurer.

W. Va., Simpson.—Maryland Coal Co., 1 Broadway, New York, will make new developments that will add over 2000 tons daily to product; 1500 acreage; plans relative to machinery proposals and cost not yet decided. Address J. W. Galloway, vice-president, at New York office.

CONCRETE AND CEMENT PLANTS

Okla., Enid.—Concrete Rails.—Burbank Reinforced Concrete Rail Co. organized with \$10,000 capital stock; Charles Burbank, president; J. J. Klein, vice-president; Frank Letson, secretary-treasurer; Everett Purcell, assistant secretary, and E. E. Toothacher, Sandover, Ill., constructing engineer; will manufacture patented reinforced concrete rail.

Tenn., Chattanooga.—C. E. James of Chattanooga Estates Co. is reported to have concluded negotiations whereby Chicago capitalists will build plant with daily capacity of 9000 barrels Portland cement; driven by electricity from transmission lines of Chattanooga Tennessee River Power Co.

COTTON COMPRESSES AND GINS

Tex., Dickens.—Love Bros. (B. Z. and O. O. Love) will open bids July 1 to erect cotton gin; buildings will be 20x32 and 27x30 feet; will install two 70-saw gin plant; cost \$2300; daily capacity, 25 bales of cotton. (Recently noted to establish plant.)

Tex., Heidenheimer.—Farmers' Gin Co. in-

corporated with \$25,000 capital stock by J. W. Mosley, J. B. Terrell, T. H. Heard and others.

Tex., Hubbard.—Hubbard Compress Co., W. O. Bowman, president, will erect building; 136x300 feet; J. I. Brown, manager, is engineer in charge of construction; cost of machinery (purchased), \$23,500; daily capacity, 1000 bales of cotton. (Recently reported organized with \$25,000 capital stock.)

Tex., Teague.—Teague Compress Co. incorporated with H. B. Stubbs president, N. A. Lucas vice-president, T. R. Watson secretary-treasurer; capital stock, \$25,000. (This is name of company recently reported to be organized by Mr. Stubbs and others.)

COTTONSEED-OIL MILLS

Ala., Waverly.—Farmers' Gin & Oil Co. contemplates installation of cottonseed oil mill. (See "Cotton Compresses and Gins.")

Ala., Waverly.—Farmers' Gin & Mill Co. organized with J. O. Webb, president; John B. Graves, vice-president; J. J. Pinnell, secretary-treasurer; J. W. Shealy, manager; main building will be 36x30 feet; galvanized-iron construction; brick foundation; construction begun; machinery purchased; daily capacity 100 bales of cotton; later contemplates installing fertilizer mixing plant and cottonseed oil mill. (Recently noted incorporated with \$10,000 capital stock.)

N. C., Clinton.—W. D. Alexander, Charlotte, N. C., is interested in establishment of cotton-oil mill.

S. C., Greenville.—Piedmont Bonded Warehouse & Compress Co. has plans by J. E. Strlin, Greenville, for warehouse and compress; warehouse will be 100x400 feet; three stories; reinforced concrete construction; plans for compress not fully determined; cost \$75,000. (Recently noted incorporated with \$100,000 capital stock.)

Tenn., Ripley.—Ripley Oil Mills incorporated with \$40,000 capital stock by W. G. L. Rice, F. A. Henry, C. R. Barbee and others.

Tex., Cameron.—Cameron Cotton Oil Co. incorporated with \$60,000 capital stock by H. L. Batte, J. S. Batte and A. H. Baskin.

DRAINAGE AND IRRIGATION

Ark., Little Rock.—Fourche Drainage District, W. M. Kavanaugh, president, is having surveys made for recently-noted proposed drainage system; work will probably be started early in fall; Lund & Hill, engineers, Little Rock.

Fla., Clermont.—Hagg Investment Co., L. W. Hagg, president, Kansas City, Mo., will install irrigation system. (See "Land Development.")

La., New Orleans.—Plaquemines Reclamation & Land Co. incorporated with \$50,000 capital stock; Ernest Woltersdorf, president; Charles E. Rollo, vice-president; Claude E. Fitch, secretary; Charles E. Johnson, treasurer; William H. Cook, general manager; purchased 5000 acres marsh land in Plaquemines parish for \$50,000 and will reclaim.

N. C., Newbern.—Drainage Commissioners of Mosely Creek Drainage District, G. V. Richardson, chairman, proposes issuing \$42,000 of bonds for construction of proposed drainage system.

Tex., San Antonio.—W. B. Tuttle, vice-president of San Antonio Traction Co., purchased 250 acres about 8 miles from San Antonio; will install irrigation system and otherwise improve; portion of property for truck and fruit growing; reported that Mr. Tuttle will erect residence.

Va., Fredericksburg.—Baltimore & Ohio Railroad, F. L. Stuart, chief engineer, Baltimore and Charles Sts., Baltimore, Md., will construct drainage system in connection with terminal improvements. (See "Railway Stations.")

ELECTRIC LIGHT AND POWER

Ark., England.—City will open bids July 1 for 30-year franchise for electric-light plant; H. Galloway, Recorder. (See "Machinery Wanted.")

Ark., Helena.—Helena Electric & Gas Co. has decided on extensive plant improvements heretofore mentioned; engineer in charge, Scofield Engineering Co., Arcade Bldg., Philadelphia, Pa.; wires Manufacturers Record that new machinery will include four 300 horse-power 200-pound superheat boilers, three 500-kilowatt 2300-volt turbines, three

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

200-kilowatt rotaries; cost about \$200,000; bids being received at Scofield offices; construction begins next month. (See "Machinery Wanted.")

Fla., Jacksonville.—Jacksonville Traction Co. (successor to Jacksonville Electric Co.) secured permit for erection of power-plant; three stories and basement; 133 feet long, 98 feet wide and 58 feet high; construction of brick, concrete and corrugated galvanized iron; framework of steel; roof of concrete, covered with tar and gravel; 200-foot concrete stack; machinery will include two 57-inch barometric condensers, three 600-horse-power tube boilers and two 1200-kilowatt generators, various feed and vacuum pumps, etc.; equipment will be capable of generating 2400 kilowatts; total cost about \$500,000. (Further facts lately mentioned.)

Ga., Stillmore.—F. P. Bryant and W. A. Brinson, Jr., will erect electric plant; machinery purchased.

Ga., Washington.—City contemplates improvements to electric-light plant, including power plant, estimated cost \$10,700; repair outside wiring, \$8000; install electric pump at pumping station and build transmission line to pumping station, \$6300; City Council proposes to issue \$30,000 of bonds. Address The Mayor.

La., Lafayette.—Lafayette Water & Light Plant, W. L. Eyres, superintendent, will install additional machinery (recently noted) recommended by Mr. Eyres; cost \$40,000. (See "Machinery Wanted.")

Miss., Tupelo.—City will receive proposals until 2 P. M. June 16 for furnishing machinery and materials for electric-light plant recently mentioned; cost about \$25,000; R. C. Huston, engineer, 1634 Exchange Bldg., Memphis, Tenn.; plans and specifications ready after June 2; D. W. Robins, Mayor. (See "Machinery Wanted.")

Mo., Anderson.—Anderson Water, Light, Heat & Power Co. incorporated with \$30,000 capital stock by B. S. Dunn, W. J. Chambliss and R. A. Bates.

Mo., Chillicothe.—City awarded contracts for construction of electric-light and power plant; J. E. Meeks of Chillicothe, Section 1, machinery and building foundation, \$3015, and Section 4, boilers and equipment, \$3274; John Gier of Chillicothe, Section 2, powerhouse building, \$5740; Metal Concrete Chimney Co., St. Louis, Mo., Section 3, brick and concrete chimney, \$1440, and Squire Electrical Construction Co., Kansas City, Mo., for 5000-gallon tower and tank and various equipment, \$30,405; Fuller-Coult Company, St. Louis, Mo., engineer. (Call for bids lately noted.)

Mo., Kansas City.—Metropolitan Street Railway Co. secured permit to erect proposed power-house at 40th St. and State line; one story; 40x132 feet; reinforced concrete; cost \$17,000.

Mo., St. Louis.—Arcadia County Club will construct water-power electric plant to cost \$50,000; consulting engineer, Dixon-Smith Engineering Co., 518-520 Wright Bldg., St. Louis; landscape engineer, Henry C. Muskoff.

Okla., Talihina.—Talihina Light & Power Co., O. P. Mullergren, president, awarded contract to Mullergren Engineering Co., Poteau, Okla., to construct electric-light plant; cost of machinery, \$10,000. (See "Machinery Wanted.")

Okla., Comanche.—City voted bond issue for electric plant. Address The Mayor.

Okla., Tulsa.—Dodge Electric Co. incorporated with \$2000 capital stock by C. A. Veale, J. W. Dodge and G. P. Dodge.

S. C., Edgefield.—City is ready to receive bids for construction of electric-light plant; W. H. Harling, Clerk and Treasurer; recently noted to vote \$15,000 bond issue. (See "Machinery Wanted.")

Tex., Bishop.—F. Z. Bishop will install additional machinery in electric-light plant; equipment purchased.

Tex., Brownwood.—M. M. Scott purchased townsite of Owens near Brownwood, and will make improvements, including installation of public utility plants.

Tex., Cuero.—Cuero Light & Power Co. has plans and specifications prepared by D. J. Hayes Company, 509 Washington Ave., Houston, Tex., for 1200 horse-power addition to electric-light plant, which covers in full all machinery and transmission material for another unit of above size; to be operated by three water wheels; contract for furnishing machinery will be let in Chicago on June 6. (Recently noted.)

Va., Richmond.—Appalachian Power Co. incorporated with \$25,000,000 capital stock to transmit electricity in counties of southwest Virginia, including cities of Pocahontas and Graham, in Virginia, and Bluefield, Princeton and Bramwell, W. Va.; president, H. M.

Byllesby; secretary, Elmer Dover; treasurer, R. J. Graff, each of Chicago; vice-president, M. A. Wells of New York; one of the directors is Robert E. Scott, Richmond. Outlining plans, Viele, Blackwell & Buck, 49 Wall St., New York, wire Manufacturers Record as follows: "Company owns five power sites on New River; two will be developed at present and lines constructed to Pulaski, Bluefield and Pocahontas coal fields in West Virginia; Radford, Christiansburg, Salem and Roanoke, Va.; lighting companies in Bluefield, Pulaski and several other towns have been purchased; 30,000 horse-power will be developed at present; ultimate development, 75,000 horse-power; construction will be started immediately; proposals for apparatus received within next 90 days; company will be managed and operated by H. M. Byllesby & Co. of Chicago, who are also the bankers; H. M. Byllesby, president; M. A. Viele, vice-president; hydraulic construction and transmission lines designed and constructed by Viele, Blackwell & Buck; number of contracts have already been secured; capital all secured; initial development will require \$6,500,000."

W. Va., Lambert, P. O. at Ellenboro.—American Undercurrent Co. of Pittsburgh, Pa., and Pennsboro, W. Va., H. L. Lambert, fiscal agent, awarded machinery contract to Columbus Engineering & Equipment Co., 490 Neilston St., Columbus, O. (Recently incorrectly noted.)

W. Va., Wheeling.—Dravo Contracting Co., Pittsburgh, Pa., advises Manufacturers Record that its work for Wheeling Electric Co. consists of construction of intake and discharge cribs and tunnels, intake well, condenser well and turbine and building foundations for the new power station at 42d and Water Sts.; this contract recently noted awarded; cost of entire plant estimated within \$900,000; engineers, Sargent & Lundy, Chicago, Ill.

FERTILIZER FACTORIES

Ala., Waverly.—Farmers' Gin & Mill Co. contemplates installation of fertilizer mixing plant. (See "Cotton Compresses and Gins.")

Ga., Americus.—International Agricultural Corporation, 165 Broadway, New York, will erect acid plant to manufacture commercial fertilizers; \$100,000 investment.

N. C., Salisbury.—Farmers' Union plans to establish fertilizer plant.

FLOUR, FEED AND MEAL MILLS

Ky., Leitchfield.—George Heyer and J. M. Whitworth contemplate erection of flour mill.

La., Baton Rouge.—Baton Rouge Mill & Elevator Co. will erect mill.

Mo., St. James.—W. R. Hale will erect flour mill.

Tenn., Byrdstown.—Byrdstown Milling Co. (recently reported incorporated with \$5000 capital stock) will establish roller mill with daily capacity of 30 barrels; produce flour, meal and feed; erect three-story \$1000 building 40x30x30 feet in size; wood framing and metal sheathing; cost of machinery \$4000; Jesse Franklin, president; S. O. Muddleston, secretary; L. B. Bobbins, treasurer; P. L. Hodges, manager.

Tenn., Cookeville.—Cookeville Roller Mill will remodel plant and install new machinery; expects to erect brick building to be equipped for capacity of 200 barrels; steam power; Thomas Allen is head miller. (Recently noted.)

Tenn., Greenbrier.—Greenbrier Milling Co., F. O. Huillbarger, manager, will probably rebuild burned sawmill.

Tenn., Livingston.—Livingston Roller Mills Co. incorporated with \$15,000 capital stock by A. M. White, Cora E. White, P. Terry, J. H. Loftis and H. A. Loftis.

Tex., Coleman.—Coleman Mill & Elevator Co. will install machinery to increase capacity.

Va., Keysville.—C. M. Stephens will install 30-barrel flour mill to replace burned mill. (See "Machinery Wanted.")

Va., Tree.—G. W. Showalter will remodel flour mill and increase capacity to 45 barrels.

FOUNDRY AND MACHINE PLANTS

D. C., Washington.—Pumps.—Smith Standard Vacuum Pump Co., 318 14th St. N. W., contemplates building plant in South; location not decided.

Ga., Dublin.—W. O. Ogburn will rebuild repair shop burned at loss of \$7000 to \$8000; will erect three-story brick building.

Mo., St. Louis.—Automobile Machinery.—Omaska Tractor Manufacturing & Foundry Co., Omaha, Neb., will, it is reported, estab-

lish plant to manufacture all parts of machinery used in constructing automobiles.

Mo., St. Louis.—Architectural Iron, etc.—Christopher & Simpson Architectural Iron & Foundry Co. has purchased ground for additional buildings; reported to erect bridge shop and other structures at cost of \$50,000.

Mo., Wellston, Station St. Louis.—Engines and Sugar Machinery.—Fulton Iron Works, St. Louis, Mo., will increase capital stock from \$250,000 to \$400,000; purchased property for \$35,200 and will erect plant.

N. C., Asheville.—Foundry Plant.—American Foundry & Supply Co. (formerly Sternberg Foundry & Supply Co.) awarded contracts to erect three buildings; J. E. Joyner, Jr., erection; Balfour Quarry Co., foundations; Norwood Lumber Co., Forney, N. C., lumber; main building (machine shop and storage-room), 40x200 feet; foundry, 70x70 feet; pattern shop, 40x50 feet; one story; wood; cost \$10,000; site, three acres.

N. C., Gastonia.—Cotton Mill Castings, etc. Gaston Iron Works (recently reported incorporated with \$100,000 capital stock by B. Frank Norris and others) acquired Gaston Iron Works conducted by Mr. Norris; plans to operate general foundry and machine shop, specialty being cotton mill castings and grate bars for furnaces; additional tools may be purchased later.

N. C., Edenton.—Machinery.—Edenton Machine & Supply Co. incorporated with \$25,000 capital stock by J. A. Mitchener, J. M. Phillips and others.

Okla., Gage.—McDonald Bros. Machine & Foundry Co. incorporated with \$7000 capital stock by J. F. McDonald, I. O. McCollough, R. R. Sherwood and others.

Tenn., Bristol.—Machines.—Waterson Power Saving Co. incorporated with \$150,000 capital stock; J. A. Dickey, president; W. D. Lyon, vice-president; B. K. Vance, secretary; G. M. Turner, treasurer; plans for building, etc., not determined.

W. Va., Huntington.—Dry Cleaning and Laundry Machinery.—Lichtler & Farmer Co. incorporated with \$5000 capital stock by L. C. Lichtler, C. D. Lichtler, Robinson Farmer, Lewis A. Staker and J. William Hagan, Jr.

GAS AND OIL DEVELOPMENTS

La., Edgerly.—Smith-Lucas Oil Co. organized with \$60,000 capital stock; will develop 500 acres of oil lands; Charles Martin, president; M. J. Kaufman, vice-president; C. J. Campbell, secretary, and C. E. Berdon, treasurer, all of Lake Charles, La.

La., Robeline.—Company organized with \$250,000 capital stock by J. J. Horton, Longview, Tex., and others; purchased 15,000 acres of oil lands for development.

La., Vinton.—Guedry Oil Co., George E. Guedry, president, New Orleans, La., has mainly purchased materials for oil development recently mentioned. (See "Machinery Wanted.")

Mo., Trenton.—Trenton Oil, Gas & Mining Co., W. W. Hubbell, secretary, will survey oil fields of Kansas and Oklahoma before operations begin; now ready for bids. (Recently noted incorporated with \$20,000 capital stock.)

Okla., Davidson.—Geyser Oil & Developing Co. incorporated with \$20,000 capital stock by J. M. Hickerson, J. L. Franklin, S. P. Anthony, J. M. Hair and others.

Okla., Keifer.—Daniels-Rike Oil Co. incorporated with \$20,000 capital stock by John Hiestand, William Roberts, George W. Raines and Edward S. Crain.

Okla., Tulsa.—Colon Oil Co. incorporated with \$25,000 capital stock by R. M. Collins, C. L. Collins and R. S. Sherman.

Tenn., Covington.—Great Southern Oil & Mining Co. is reported as planning development of 1435 acres gas and mineral land in Tipton county; secretary-treasurer, George C. Sandifer of Louisville, Ky.; engineer, John L. Harpending of Memphis, Tenn. (Previously reported incorporated.)

Tex., Houston.—G. H. & H. Oil Co. incorporated with \$25,000 capital stock by J. W. Greer, Charles D. Hill and J. C. Cole.

Tex., Pecos.—B. T. Biggs is interested in organization of company with \$100,000 capital stock to secure gas and oil leases near Pecos and Toyah.

W. Va., Henry.—Clay County Oil & Gas Co. chartered with authorized capital of \$25,000 by Henry B. Davenport of Clay, W. Va.; D. H. Stephenson of Clendenin, W. Va.; Joshua Davis, Joseph Moore and J. J. Davis of Charleston, W. Va.

W. Va., Parkersburg.—Washburn Oil Co. has organized with Patrick McDonough, president; George W. Boso, vice-president; C. T. Dutton, secretary; T. J. Garrity, treasurer; will develop oil leases in Murphy district, Ritchie county. (Recently noted incorporated with \$50,000 capital stock.)

W. Va., Parkersburg.—Nutter Oil & Gas Co. incorporated with \$25,000 capital stock by T. J. Hines and John J. Crotty of Parkersburg, A. E. Kenney of Grantsville, W. Va., and others.

W. Va., Wheeling.—Natural Gas Co. increased capital stock from \$1,000,000 to \$2,000,000.

ICE AND COLD-STORAGE PLANTS

La., Roseland.—Roseland Veneer & Package Co., E. D. Wagnalls, secretary-treasurer, contemplates installing small ice and refrigerating plant. (See "Woodworking Plants" and "Machinery Wanted.")

Tenn., Franklin.—J. W. Rollins of Kentucky purchased site from W. M. Gentry, and will erect ice plant.

Tex., Carrizo Springs.—Carrizo Springs Ice Co. incorporated with \$10,000 capital stock by K. R. Marliens, A. J. Ingersoll and J. Lewis Davis.

Va., Winchester.—C. L. Robinson Ice & Cold Storage Co. incorporated with \$150,000 capital stock; C. L. Robinson, president; William R. Hillyard, vice-president.

LAND DEVELOPMENTS

Ala., Birmingham.—Zion Cemetery Co., Woodlawn Station, Box N. 6, will develop cemetery; improvements include laying off streets, grading, etc.; cost \$1000; engineer not selected. (Recently noted incorporated with \$10,000 capital stock.)

Ala., Foley.—Duke Naven, C. M. Best, J. C. Payne, Alf Essendrup and others organized company; purchased 2000 acres; will clear, plant in pecans and Satsuma oranges and sell in five and ten-acre tracts.

Ala., Mobile.—Louis H. Piper and R. G. Britt, Indianapolis, Ind., purchased 1000 acres of tobacco land in Baldwin county for \$100,000 and will, it is reported, expend about \$50,000 in development.

Fla., Clermont.—Hagg Investment Co., L. W. Hagg, president, Kansas City, Mo., purchased 27,000 acres of Lake county land; will develop for farming and residential purposes; for latter 2000 are reserved for graded and paved streets, water, sewerage and electric-light systems, etc.; 20,000 acres for 10 and 20-acre farms and irrigation system; several lakes in vicinity, three largest being connected by canals, affording continuous water frontage of about 100 miles; will construct additional canals, making waterway from Clermont to Jacksonville, by which route Atlantic Ocean can be reached; owners also plan to construct boulevard along shores of lakes. C. E. McRae, Kansas City, Mo., civil engineer of company, has begun platting property.

Ga., Dublin.—Sam Bashinski purchased 700 acres land for \$25,000; will improve for building sites and several acre farms.

Ga., Statesboro.—Ivanhoe Farm & Produce Co. organized with \$20,000 capital stock to engage in farming; owns 3000 acres and proposes to clear at least 1000 acres; W. H. Cone, president; F. B. Groover, vice-president; W. A. Groover, secretary-treasurer.

Ga., Thomasville.—Georgie Land & Timber Co. purchased 5000 acres land; will divide into small farms.

La., New Orleans.—Bienville Realty Co. organized with T. P. Thompson, president; John A. Grehan, vice-president; E. L. Chapuis, secretary, and George W. Young, treasurer; capital stock \$100,000; purchased 42 acres from Andrew Fitzpatrick for \$50,000 and will improve as suburban residential section, constructing streets and sidewalks, etc.

Miss., Hattiesburg.—W. W. Herron Lumber Co., Mobile, Ala., purchased 3500 acres cut-over timber land in Perry county and will colonize.

Miss., Natchez.—Mississippi-Louisiana Land Investment Co. incorporated with \$250,000 capital stock by Fremont Goodwine, Williamsport, Ind. (winter home in Natchez, Miss.); C. R. Byrnes, A. C. Alexander and J. F. Van Voorhees, all of Natchez; owns several plantations in Louisiana and in Adams county, Mississippi; will subdivide into 50-acre tracts and colonize; offices in Vidalia and general headquarters in Natchez.

Miss., Scott.—Mississippi Delta Planting Co. chartered with \$1,000,000 capital stock by L. K. Salsbury, Central Bank Bldg., Memphis, Tenn., and associates. Mr. Salsbury advises Manufacturers Record that this company is organized to lease properties recently purchased by him and associates. Details of purchase and organization of Lake Vista Plant Co. and Triumph Plantation Co., each capitalized at \$1,500,000, with plans for draining, erecting gin and compress, etc., were stated recently.

N. C., Charlotte.—Traders' Land Co. incor-

porated with \$50,000 capital stock by T. W. Wade, Clarence E. Frick and C. D. Bennett.

N. C., Charlotte.—Company organized by Harvey Lambeth, C. E. Messer, W. D. Wilkinson, W. H. Barkley, M. M. Wallace and others to develop 50 acres; improvements will include streets, driveways and sidewalks.

N. C., Waynesville.—Southern Assembly, Rev. James Cannon, general superintendent, is proceeding with development of previously noted Summer Assembly grounds; has let contract for two miles of driveway, will improve all present roads and has plans about ready for proposed \$100,000 dam; date for erection of buildings not yet decided; contemplated to have grounds ready for use in 1912; W. Seaver, Jr., chief engineer in charge of work, Waynesville.

Okl., Oklahoma City.—Mount Hood Development Co. incorporated with \$20,000 capital stock by J. E. Goss, Sr., J. E. Goss, Jr., and T. E. Goss.

Tenn., Knoxville.—Island Home Park Co. purchased 150 acres land for suburban addition; C. F. Spence, president; S. M. Johnston, vice-president; R. M. Doll, secretary-treasurer. (Recently noted incorporated with \$75,000 capital stock.)

Tenn., Knoxville.—Island Home Park Co., recently reported incorporated with \$75,000 capital stock, elected Cary F. Spence, president; S. M. Johnston, vice-president, and R. M. Doll, secretary-treasurer; purchased 150 acres and will expend about \$25,000 in improving as residential suburb; divide into 350 lots, construct water and light facilities, parks, etc.

Tex., Dallas.—Dallas-Denton Development Co. plans ultimate development of 500 acres of leased land; present plan is to clear, fence, plow and plant part of acreage; cultivation by irrigation; Dr. J. T. Wells, president; John A. Brooks, secretary; Thomas Montgomery, treasurer. (Recently noted incorporated with \$75,000 capital stock.)

Tex., Farwell.—Farwell Development Co. incorporated with \$3000 capital stock by James D. Hamlin, James M. Hamlin and C. C. Marshall.

Tex., Houston.—William A. Wilson Company, William A. Wilson, president, purchased 100 acres adjoining tract of 70 acres already owned, and will develop suburban residential section; 800 to 1000 building lots; improvements will include light, water, gas, electricity, telephone system, connection with city sewerage system, cement sidewalks and graded streets.

Va., Charlottesville.—W. J. Keller, secretary-treasurer Robinson Cove Orchard Co., may be addressed relative to company's plans for development. (Company was recently noted incorporated with \$25,000 capital stock.)

Va., Richmond.—William and Edward Schmidt and associates purchased Westham (suburb); will further improve; divide into half-acre and three-acre plots for residences.

W. Va., Martinsburg.—Hill Crest Land Co., George W. Buxton, president, has engaged H. H. Hess, S. Queen St., Martinsburg, as engineer in charge of development of subdivision; amount to be expended, \$10,000. (Recently noted incorporated with \$30,000 capital stock.)

W. Va., Huntington.—Huntington Development Co. incorporated with \$50,000 capital stock by H. A. Robson, A. P. Hudson and C. P. Nelson, Charleston, W. Va.; F. E. Walker of Huntington and P. M. Snuder, Mount Hope, W. Va.

LUMBER MANUFACTURING

Ga., Macon.—Massee & Felton Lumber Co., M. H. Massee, president, states as follows relative to new sawmill plant; daily capacity, 40,000 feet mixed hardwoods; mill-construction building; 42x160 feet; building contract let to Jones Bros., Macon; machinery contract also placed.

Ga., Thomasville.—Upchurch & Co., Raeford, N. C., purchased 3000 acres timber land for development.

Ky., Louisville.—Gregg Lumber & Building Co. incorporated with \$10,000 capital stock by J. A. Gregg, G. R. Gregg and George Steufle.

La., Franklinton.—Henry Miller, Columbia, Miss., purchased for \$45,000 uncut timber on tract of 1600 acres; will erect sawmill of 20,000 feet daily capacity.

La., Lake Charles.—Lake Charles Planing Mill Co., G. Mutersbaugh, president, increased capital stock from \$25,000 to \$50,000.

La., Lott.—Levert Lumber & Shingle Co., J. B. Levert, president, is removing plant from Plaquemine; no equipment or machinery needed. (Recently noted to erect plant.)

La., Franklinton.—E. L. Magee (recently

noted to erect sawmill) states location has been sold to Sanford & Adams of Zona, La.

Miss., Overt.—J. R. Burkwalter, Wingate, Miss., will not establish sawmill. (Recent report an error.)

Mo., St. Louis.—Kimball Lumber Manufacturing Co. incorporated with \$500,000 capital stock by Marcus J. D. Rast, Frederick Vierling, Fred A. Gissler and others.

N. C., Three Forks.—Scul-Lambert Lumber Co., Boonford, N. C., will not erect recently reported mill before next year.

N. C., Waukegan, R. Station Winston-Salem.—M. D. Smith, Winston-Salem, N. C., will establish lumber plant; secured and will remodel building.

S. C., Cartersville.—Evans & Carter of Maxton, N. C., have purchased seven-foot band mill and will begin at once erection of mill shed to replace burned structure recently noted; daily capacity 35,000 feet of timber; no further equipment needed at present.

S. C., Columbia.—Columbia Lumber Co. incorporated with \$50,000 capital stock by C. W. Breckley, George Dahl, George Gernery and C. L. Detert.

S. C., Rock Hill.—Sylecan Manufacturing Co. increased capital stock from \$30,000 to \$50,000.

Tenn., Memphis.—Phillip A. Ryan Lumber Co. increased capital stock from \$50,000 to \$75,000.

Va., Buena Vista.—Grow-Biggs Company incorporated with \$25,000 capital stock; W. H. Grow, president; H. W. Biggs, secretary-treasurer.

W. Va., Clarksburg.—E. Stringer Boggess Company incorporated with \$10,000 capital stock by Lewis O. Smith, E. Stringer Boggess, Sarah Boggess Smith and others.

W. Va., Deanneville (not a postoffice).—Weston Lumber Co., J. C. Roane, president, Weston, W. Va., will rebuild lumber manufacturing plant reported burned; plans not determined; open bids for machinery June 1.

W. Va., Huntington.—Licking River Lumber Co., F. G. Eberhart, president, will rebuild plant recently reported burned; probably erect 80x160-foot ordinary frame and sheet-iron building; date of opening building proposals not decided; hardwood flooring and planing-mill machinery; plans not definite; in charge of R. G. Page, secretary and manager.

W. Va., Star City.—Mountain Lumber Co. incorporated with \$10,000 capital stock by W. K. Watson, P. M. Semple, W. J. Wambaugh and others.

W. Va., Weston.—Davis-Elkin Lumber Co. chartered with authorized capital of \$100,000 by P. E. Eakin, J. R. Davis, C. E. Hinkle, S. Hinkle and W. W. Brannon.

MINING

Ga., Augusta.—Granite.—American Granite Co. organized with Charles F. McKenzie, president; William F. Bowe, secretary; Jacob Phinizy, treasurer, all of Augusta; B. C. Banks, treasurer, 15 E. Congress St., Savannah, Ga. (Recently reported incorporated with \$600,000 capital stock.)

Miss., Brookhaven.—Gravel.—Flynt Gravel Co. will install gravel-washing machinery and bins; contract awarded.

Mo., Cartersville.—Billiken Leasing & Mining Co. incorporated with \$32,000 capital stock by R. L. Milton, M. C. Terry, W. E. Sexton and others.

Mo., Joplin.—Lead and Zinc.—Sheffield Mining Co. incorporated with \$5000 capital stock by Alexander G. Dixon, Thomas Relling and Reginald H. Barratt.

Mo., Webb City.—Lead and Zinc.—Weaver Mining Co. incorporated with \$10,000 capital stock; C. B. Guinn, president; C. A. Fisher, vice-president; A. M. Gibson, secretary-treasurer; plans not completed.

Okl., Davis.—Davis Mine & Mill Co., recently reported incorporated with \$30,000 capital stock, will develop 60 acres of mineral land; daily output and character of development not determined; at present will install core drill for testing; S. H. Davis, president; W. H. Richardson, vice-president; E. A. Hill, secretary; C. C. Caldwell, treasurer; Charles B. Ramsey, manager; W. S. Wood, engineer in charge. (See "Machinery Wanted.")

Okl., Tulsa.—Joseph Ball Heirs Manufacturing & Mining Co. incorporated with \$3000 capital stock by Katharine M. Hickman, Thomas W. Crabbe and John B. Foster.

Tenn., Jonesboro.—Zinc.—Henry H. Culbertson, Cleveland, O., is interested, it is reported, in development of zinc properties.

W. Va., Ronceverte.—Marl.—Old Sweet Spring Co., C. C. Lewis, Sr., president, will

develop marl deposits on 800-acre tract; purchased machinery, including pulverizer, and will prepare marl for fertilizing purposes.

MISCELLANEOUS CONSTRUCTION

Fla., Jacksonville.—Wharf.—Jacksonville Traction Co. (successor to Jacksonville Electric Co.) will erect 380-foot wharf; carry intake tunnel entire length; bulkhead about 330 feet along water-front; entire area will be back-filled from excavation at site of power-house (to be erected); wharf will be equipped with track and traveling steam crane to be used for unloading coal supply for station; depth of about 22 feet of water will be obtained.

Fla., Jacksonville.—Dredging, etc.—P. Sanford Ross, Jersey City, N. J., lowest bidder to dredge about 65,000 cubic yards mud and oyster shell from St. Johns River and place about 6200 tons granite rock along revetment wall, being portion of present 20-foot channel project from city to sea; bid 74 cents per cubic yard, or \$48,100, for dredging, and \$2.95 per ton, or \$18,290, for placing stone; area proposed to dredge, 600 feet long and 300 feet wide; Capt. George Spaulding, U. S. Engineer in charge.

Fla., Miami.—R. G. Ross, Jacksonville, Fla., awarded contract at \$2.93 per cubic yard for placing 1000 yards of stone on jetties already constructed to serve as revetments and to protect jetties from injury by heavy seas; Bowers Southern Dredging Co., Galveston, Tex., is lowest bidder for dredging in Caloosahatchee River; Capt. R. G. Spaulding is U. S. Engineer in charge.

Ky., Louisville.—Automatic Block System.—Chicago, Indianapolis & Louisville Railway, A. H. Westfall, general manager, Chicago, Ill., will install automatic block system.

La., New Orleans.—Levee.—Board of State Engineers, 213-215 New Orleans Court Bldg., will open bids June 14 for construction of Jeter levee, 3700 feet long, contents 48,500 cubic yards; South bank of Loggy Bayou levee, contents 35,000 cubic yards. (See "Machinery Wanted.")

Miss., Vicksburg.—Monument.—State of Missouri appropriated \$50,000 for joint Union and Confederate memorial in Vicksburg National Military Park; memorial to be of granite and bronze; Herbert S. Hadley, Governor, Jefferson City, Mo.

N. C., Waynesville.—Dam.—Southern Assembly, Rev. James Cannon, general superintendent, has plans and specifications about completed for previously described \$100,000 dam; bids will be called within next few days; J. W. Seaver, Jr., chief engineer, Waynesville. (See "Land Developments.")

S. C., Columbia.—Steamship Terminals.—Columbia & Atlantic Steamship & Railway Co., T. C. Williams, president, and Frank T. Graham, traffic manager, will begin construction within 60 days of Granby Landing terminals; improvements to include warehouse, transfer platform about 500 feet long and covered to protect merchandise, inclined railway from platform to water, etc.; about 11 acres for this development; 1500-foot frontage on river, extending back 365 feet; will construct three steel steamships of 225 tons capacity each.

S. C., Greenville.—Retaining Wall.—City will construct retaining wall on lower side of S. Main St.; estimated cost \$3000. Address The Mayor.

Tex., Galveston.—Channel.—Bowers Southern Dredging Co. of Galveston is lowest bidder at 15 cents per cubic yard to enlarge and deepen channel from mouth of Brazos River two miles upstream; bid, on estimate of 291,000 cubic yards, about \$43,650; channel to be 18 feet deep at mean low tide, and 150-foot bottom width; existing channel 13 feet deep and 75 feet wide. Major George P. Howell, United States Engineer, in charge.

Tex., Texas City.—Dredging.—Government, Maj. George P. Howell, U. S. Engineer in charge Galveston District, awarded contract to Atlantic, Gulf & Pacific Dredging Co. of New York and other cities to continue dredging Texas City channel; bid \$2.33 per lineal foot on basis of 12,000 feet, or \$27,960; channel to be dredged and deepened to 27 feet from Station 10 to 22, 12,000 feet; bottom width, 100 feet; side slopes steep as material will permit; to be done under \$50,000 appropriation. (Recently mentioned.)

Va., Norfolk.—Steamship Piers.—Old Dominion Steamship Co., H. C. Higgins, superintending engineer, Pier 26 North River, New York, advises Manufacturers Record that Old Dominion Terminal Co.'s present plans contemplate four piers; 60x300, 80x300, 222x300 and 222x100 feet; construction to be timber ereoted; cost not yet estimated; engineer not appointed. (Previously mentioned.)

Va., Port Norfolk (not a postoffice).—New York, Philadelphia & Norfolk Railroad Co., R. V. Massey, superintendent, Cape Charles, Va., will not extend yard tracks or construct additional piers in near future. (Recently noted to purchase site.)

Va., Richmond.—Dam.—City will construct concrete dam at Joseph Bryan Park (Youngs Pond) and enlarge park house at Marshall Square; bids received until June 1; Charles E. Bolling, City Engineer.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Publishing.—Birmingham Journal Publishing Co. incorporated with \$2000 capital stock; Charles H. Sheraton, president; Mrs. Mary Sheraton, vice-president; George C. Bodine, secretary-treasurer.

Ala., Birmingham.—Cotton.—Southern States Cotton Corporation chartered with \$24,000 capital stock to organize system of guaranteeing or certifying bill of lading, compressing cotton, etc.; active president, P. C. Wadsworth; secretary-treasurer, F. Straight Miller.

Ala., Iron City.—Grain.—Iron City Grain Co. incorporated with \$10,000 capital stock; H. Kockritz, Jr., president; C. F. Allgood, secretary-treasurer; J. W. Foster, vice-president.

Fla., Jacksonville.—Automobiles.—Southern Motor Co. incorporated with \$25,000 capital stock; H. S. Griggs, president and treasurer; George K. Watt, vice-president and secretary.

Ga., Athens.—Publishing.—Tribune Publishing Co. (recently reported incorporated with \$25,000 capital stock) will publish Athens Tribune; T. J. Shackelford, president; John R. Burke, manager and editor.

Ga., Dublin.—Whips.—Southern Whip Co. incorporated by Hal P. Shewmake, M. A. Shewmake, S. T. Hall, G. M. Fomby and others.

Ga., Statesboro.—Garage.—W. S. Pretorius awarded contract to A. J. Franklin, Statesboro, to erect garage and store. (See "Stores.")

Ky., Louisville.—Publishing.—Louisville Herald contemplates erection of newspaper plant; details not determined; W. K. McKay is manager.

Ky., Louisville.—Automobile Supplies.—Crescent Hill Auto Supply Co. incorporated by John M. Banta, E. T. Adams and J. D. Knadler.

Ky., Nicholasville.—Construction.—Bluegrass Construction Co. incorporated with \$5000 capital stock by John McClure, C. S. Woodward and Richard Hagar.

Md., Baltimore.—Tobacco and Cigars.—The Tobaccos incorporated with \$500,000 capital stock by W. L. Bailey, Baltimore, and W. L. Lamerdel and George L. Fullwood, Norfolk, Va.

Mo., St. Louis.—Grain Elevator.—Bert H. Land will erect grain elevator and warehouse. (See "Warehouses.")

N. C., Spray.—Printing.—Eagle Printing Co. incorporated with \$5000 capital stock by A. C. Phelps, C. P. Wall and R. L. Thompson.

N. C., Wilson.—Contracting.—W. B. Wilkins Company incorporated by W. B. Wilkins, S. A. Woodard and W. P. Anderson.

Okl., Bartlesville.—Drilling.—Glasgow Drilling Co. incorporated with \$30,000 capital stock by W. A. Glasgow, J. K. Robb and F. A. Beatty.

Okl., Claremore.—Rogers County Leader incorporated with \$1500 capital stock by A. F. Mood, Frank Ertel, Ray K. Hart and others.

Okl., Guthrie.—Mineral Water.—Hercules Mineral Water Co. incorporated with \$20,000 capital stock by L. F. Alby, C. R. Blake and A. P. Blake.

Okl., Oklahoma City.—Directory.—Worley-Friss Oklahoma Directory Co. incorporated with \$5000 capital stock by J. L. Worley, Dallas, Tex.; M. E. Friss and C. H. Stanton of Oklahoma City.

S. C., Camden.—Garage.—Camden Motor Co. will erect garage.

S. C., Charleston.—Road Contractors.—H. H. Snyder Company incorporated with \$15,000 capital stock by H. H. Snyder, D. J. Ryan and C. E. Heatt.

S. C., Wellford.—Construction.—Berry-Fortune Construction Co. incorporated with \$10,000 capital stock by A. L. Berry and C. A. Fortune.

Tenn., Columbia.—Garage.—F. R. Gamble & Co. leased Caldwell Bottling Co. building at N. Main and 6th Sts. and will remodel as garage and machine shop; garage to have floor space for about 35 machines; machine shop to be operated by electric motor.

Tenn., Memphis.—Construction.—C. B. Bar-

ker Construction Co. incorporated with \$10,000 capital stock by A. F. Schieber, C. B. Barker, J. O. Manor and others.

Tex., Dallas—Publishing.—Woodman Journal Publishing Co. incorporated with \$5000 capital stock by R. H. McDill, William A. Harris and E. Claude Bracken.

Tex., Dallas.—Rosemont Realty Co. incorporated with \$17,500 capital stock by T. L. Camp, W. E. Campbell, H. D. Ardrey and others.

Tex., Elgin—Garage and Repair Shop.—Morell & Ewing awarded contract to H. Snowden to rebuild garage and repair shop recently reported burned; 50x100 feet; fireproof construction; cost \$5000. (See "Machinery Wanted.")

Tex., Fort Worth—Supplies.—Fort Worth Supply Co. incorporated with \$10,000 capital stock by Albert N. Mann, Arthur D. Hodgson and Calvin W. Fitch.

Tex., Houston.—Southern Company incorporated with \$10,000 capital stock by L. H. Dunn, W. T. Torrey, George N. Torrey and L. H. Dunn.

Tex., Llano—Automobiles.—Llano Auto Co. incorporated with \$6000 capital stock by C. E. Schultz, M. L. Moss and P. L. Jernigan.

Tex., Taylor—Crematory.—City will vote June 30 on \$4000 bond issue for crematory; C. M. Still, Mayor.

Tex., Timpson—Garage.—W. C. Johnson of Timpson and Thomas Bradford, Pensacola, Fla., will erect automobile and machine shop; ordered gasoline engine, drills, lathes and other equipment.

Va., Keysville—Laundry.—Crystal Ice Co. will install laundry equipment; mainly purchased; operate in connection with ice plant. (See "Machinery Wanted.")

W. Va., Follansbee—Publishing.—Follansbee Publishing Co., recently reported incorporated with \$5000 capital stock, has organized with Edward Hopkins president, L. M. Refner vice-president, Harry Edwards secretary and manager, John Lake treasurer; will install printing machine. (See "Machinery Wanted.")

MISCELLANEOUS FACTORIES

Ala., Birmingham—Glass Works.—Robert R. Zell is corresponding with glass manufacturers of Michigan, Indiana and Pennsylvania relative to building three glass plants, using natural gas in Birmingham district.

Ala., Birmingham—Marble.—Alabama Carara Marble Co. incorporated with \$10,000 capital stock; J. M. Meighan, president and manager; H. M. Atkinson, vice-president, Atlanta, Ga.; James Bonnyman, secretary-treasurer.

Ala., Montgomery—Cleaning Materials.—Kle-Nol Company incorporated with \$300,000 capital stock; J. Kirk Jackson, president.

Ala., Montgomery—Beverages.—Cafenola Company incorporated with \$5000 capital stock by J. Robert Sims, Jr., Walter Kendrick and R. L. Rowing.

Ark., Hot Springs—Tanneries.—N. G. Cottrell, 912 Central St., controls tanning process and is considering proposition for establishment of plants at various locations.

Fla., Jacksonville—Bakery.—A. S. Beville, 213 Main St., awarded contract to O. P. Woodcock, Jacksonville, to erect bakery; 40x100 feet; brick; cost \$5500; plans by C. C. Clayton, Jacksonville; cost of machinery, \$3000; daily capacity, 10,000 loaves of bread. (Recently noted.)

Fla., St. Petersburg—Rice.—O. T. Railsback is promoting establishment of rice mill.

Fla., Tampa—Clothing.—Warren E. Smith, New Orleans, La., will establish plant to manufacture Spanish linen clothing, overalls and children's clothing; initial plant will have 30 machines operated by electricity.

Ga., Atlanta—Dairy.—Horace Grant and associates contemplate establishment of dairy.

Ga., Albany—Gas Plant, etc.—City will vote June 12 on \$50,000 bond issue for purchase of site and erection of gas plant; \$10,000 for public parks; \$10,000 for improving and maintaining city cemetery; \$5000 for new streets; \$12,500 for street paving; \$12,500 for improvements to water-works system, including extension of storm and sanitary sewers and water mains; N. F. Tift, Mayor. (Under "Miscellaneous Factories" total of \$100,000 was recently incorrectly noted as "\$10,000.")

Ga., Cedartown—Trucks and Wheels.—Company recently noted organized to manufacture patented truck and noiseless cotton wheel will be incorporated; capital stock \$100,000; those interested are A. E. Young, C. W. Smith and others of Cedartown; C. B. Morris, Philadelphia, Pa., and Chas. Adamson (president Cedartown Cotton & Export Co.), whose Philadelphia office is 119 S. 4th St. (Recently noted.)

Ga., Cedartown—Trucks and Tires.—Noiseless Wheel & Truck Co. will be incorporated with \$100,000 capital stock to manufacture patented trucks and tires; probably use building already erected; officers not yet elected; C. B. Morris of Philadelphia, Pa. (owner of patents) interested; machinery being arranged for; for the present, address company, care of Chas. Adamson, 119 S. 4th St., Philadelphia, Pa. (Recently noted.)

Ga., Macon—Gas.—Macon Gas Light & Water Co., H. T. Powell, president, 259 2d St., awarded contract to Jones Bros., Macon, for construction of (previously noted) two-story brick office building and gasholder; improve ments to gas plant and mains will cost \$25,000. (Recently noted.)

Ga., Savannah—Cigars.—Lee Roy Myers Company purchased site with frontage of 120 feet; will erect 50x110-foot building; mill construction; cost of machinery \$15,000; daily capacity 50,000 cigars.

Ga., Thomasville—Drugs.—D. M. Jordan & Co., D. M. Jordan, president, Whigham, Ga., will establish plant to manufacture medicine and flavoring extracts.

Ky., Bowling Green—Corn Planters.—M. B. Thomas, 519 Fairview Ave., proposes organizing company with \$25,000 capital stock to manufacture patented automatic weeding corn planter.

La., New Orleans—Jewelry.—Leonard Krower, Canal St. and Exchange Alley, will install additional machinery to double present output of 10 and 14-karat jewelry.

La., New Orleans—Chemicals.—Ell Lilly & Co., Indianapolis, Ind., secured 10-year lease on building at Canal and Front Sts., and will remodel.

La., Shreveport—Window Glass.—Caddo Window Glass Co. will erect window-glass factory; fireproof construction; cost \$75,000; will install machinery for daily capacity of 800 boxes of 59 feet each; August Boulanger (previously noted to establish plant) is president and manager; H. Boulanger, vice-president; Alfred Camus, secretary; Albert Alexander, treasurer. (See "Machinery Wanted.")

La., Shreveport—Oil Refinery.—Caddo Oil Refinery Co., J. B. Atkins, president, is erecting oil refinery; daily capacity 1500 barrels of oil; machinery purchased. (Recently noted to have acquired refinery at New Orleans and to remove machinery to Shreveport.)

La., Youngsville—Youngsville Sugar Factory, R. O. Young, manager, plans expenditure of \$100,000 in improvements during 1914; will erect iron-clad addition; construction by company; F. B. Dunning, engineer in charge; machinery contract (recently noted) placed; daily capacity, 120,000 pounds of sugar; in fall will need filter press cloth washing machine. (See "Machinery Wanted.")

Md., Baltimore—McCormick & Co., 105-119 Concord St., purchased warehouses at 722, 724 and 726 E. Pratt St. and 118 West Falls Ave. as addition to present plant; West Falls Ave. building for packing teas; will install printing plant and use one warehouse for mustard manufacturing; install electrical elevators and equip each building with sprinkler and automatic fire-alarm system.

Miss., Hattiesburg.—D. M. Collier will establish dairy; purchased 1000 acres of land.

Miss., Moss Point—Gas.—Flynn Brown, Chicago, Ill., will establish gas plant; cost about \$150,000; Board of Aldermen granted franchise.

Mo., Kansas City—Syrup.—Gay Old Syrup Co. incorporated with \$3000 capital stock by J. R. Flick, R. B. Caldwell and E. R. Glenn.

Mo., Marionville—Creamery.—Marionville Creamery Co. incorporated with \$4000 capital stock by W. J. Coleman, W. H. Bradford and C. D. Cannady.

Mo., St. Louis—Sheet Metal Heating and Roofing.—Weber Manufacturing Co. incorporated with \$4000 capital stock by R. A. Shotwell, F. C. Shotwell and J. C. Banks.

Mo., St. Louis—Drugs, etc.—Barnes Manufacturing Co. incorporated with \$25,000 capital stock by E. R. Barnes, F. J. Bonskowski and E. W. Hughes.

Mo., St. Louis—Clocks.—Hoffmann-Pallhans Clock & Manufacturing Co. incorporated with \$10,000 capital stock by George J. Hoffmann, K. M. Hoffmann, Frances Pallhans and George P. Pallhans.

Mo., St. Louis—Cut Glass.—Bergen Cut Glass Manufacturing Co. incorporated with \$8000 capital stock by W. T. Bergen, Charles B. Bergen, J. J. Phillips and others.

Mo., St. Louis—Steel Tire.—Gregory De Hart Cushion Steel Spring Tire Co. will be incorporated to manufacture steel automo-

bile and motorcycle tires; J. C. Crouch will be president.

Mo., St. Louis—Cloaks and Suits.—Kurlander Bros. Cloak & Suit Co. incorporated with \$50,000 capital stock by J. D. Livingston, Charles Kurlander, Solomon Kurlander, J. R. Virdier and J. F. McCourtney.

Mo., St. Louis—Cut Glass.—Bergen Cut Glass Manufacturing Co. incorporated with \$8000 capital stock by W. T. Bergen, Charles B. Bergen, Jerome J. Phillips and Woodlief Thomas.

N. C., Fayetteville—Salted Peanuts.—Frank Baker and Hammond Baker, Charleston, S. C., will, it is reported, establish plant to salt peanuts in shell.

N. C., Winston-Salem—Tobacco.—R. J. Reynolds Tobacco Co., R. J. Reynolds, president, will let contract June 1 to erect addition to factory; five stories; 125,000 square feet of floor space; mill construction; plans by J. E. Sirrine, Greenville, S. C. (Recently noted.)

Okla., E. Reno—Hardware and Implements.—Newell-Talbot Hardware & Implement Co. incorporated with \$20,000 capital stock by A. F. Newell, A. E. Newell, both of El Reno, and E. R. Talbot, Watonga, Okla.

Okla., Muskogee—Implements.—Eagle Manufacturing Co., Kansas City, Mo., has completed final arrangements for establishment of proposed implement plant; building will be of reinforced concrete and steel, 100x140 feet, with concrete floors and asbestos roof; building material required is estimated to cost \$30,000; cost when completed is estimated at \$35,000; plans by J. A. Whitlock of Muskogee; contract for construction awarded to McKee Construction Co.

Okla., Muskogee—Gasoline Refinery.—Gasoline Refining Co. incorporated with \$12,000 capital stock by E. R. Perry, Tulsa, Okla.; H. C. Lette and A. J. Vaughan of Muskogee.

Okla., Oklahoma City—Street Sweepers.—Sanitary Street Sweeper Co. incorporated with \$50,000 capital stock; closed contract with Oklahoma Gas Engine Co. to manufacture patented street sweeper; operated by 35-horse-power gasoline engine; president, F. Lee Wilson; secretary, J. O. Eckels; treasurer, A. P. Cash.

Tenn., Memphis—Bayless Manufacturing Co. incorporated with \$75,000 capital stock by W. B. Bayless, L. M. Thompson, John I. Scott and others.

Tenn., Memphis—Drugs.—Hankerson-Robinson Drug Co. incorporated with \$15,000 capital stock by C. E. Hankerson, W. H. Robinson, J. E. Morris and others.

Tex., Atlanta—Window Glass.—Bonhom Window Glass Co. will establish window glass factory; erect \$75,000 brick, iron and wood buildings; will install machinery, including gas engine, motor and fan, for daily capacity of 1000 boxes window glass; Edgar Berry, president and manager; Ed. P. Jones, vice-president and secretary; P. C. Willis, treasurer.

Tex., Austin—A. L. Gooch contemplates erecting limestone and granite plant to cost \$15,000.

Tex., Berclair—Brooms.—W. D. Ellis and associates will erect broom factory.

Tex., Dallas—Hats.—Campbell-Waldapfel Company incorporated with \$2000 capital stock by Charles P. Campbell, H. J. B. Waldapfel and Fred Cadmus.

Tex., Harlingen—Sugar and Syrup.—Hill Sugar Co., Lon C. Hill, president, will begin construction of sugar and syrup mill; contractor, D. J. Hayes Company, Houston, Tex.; machinery costing \$250,000 has been purchased; daily capacity, 750 tons cane; mill-construction building. (Previously mentioned.)

Tex., Port Arthur—Oil Refinery.—The Texas Company, E. C. Lufkin, second vice-president, general office at 710 Main St., Houston, Tex., New York office at 17 Battery Pl., is preparing to expend about \$500,000 for enlargement of oil refinery operations at Port Arthur.

Tex., Waco—Mattresses and Bedspreads.—Dennis Manufacturing Co., S. 9th St., will erect building; brick; 33x40 feet; one story.

Va., Bedford City—Cigars.—J. K. Walker Cigar Mfg. Co. incorporated with \$10,000 capital stock; J. K. Walker, president; W. R. Fowlkes, vice-president; J. J. Scott, secretary-treasurer; has buildings; daily capacity 20,000 cigars.

Va., Barton Heights—Gas.—Town contemplates granting franchise for gas plant; bids to be received until June 9; L. T. Webster, Town Clerk. (See "Machinery Wanted.")

Va., Bedford City—Cigars.—J. K. Walker Cigar Manufacturing Co. incorporated with \$10,000 capital stock; J. K. Walker, president; W. R. Fowlkes, vice-president; J. J. Scott, secretary-treasurer; succeeds J. M. Smith Tobacco Co.

Va., Bristol—Novelties.—Bristol Novelty Co. incorporated with \$3000 capital stock; C. C. Aron, president; W. I. Brunner, vice-president; W. O. Green, secretary-treasurer.

Va., Petersburg—Candy.—H. P. Harrison Company's conandy factory will be three stories high; 52x130 feet; plans not determined. (Recently noted.)

Va., Norfolk—Drugs.—International Supply Co. incorporated with \$30,000 capital stock; Edwin Lewis, president; G. C. Lewis, vice-president, both of Rockville, Md., and G. W. Davis, secretary-treasurer, Norfolk, Va.

Va., Norfolk.—International Manufacturing Co. incorporated with \$25,000 capital stock; C. Folm, president, Portsmouth, Va.; T. C. Reichel, secretary-treasurer, Norfolk.

Va., Salem—Medicine.—Hancock Inoculum Co., M. G. McClung, president and general manager, increased capital stock from \$50,000 to \$500,000; manufactures "Oculum," a medicine for fowls and hogs.

W. Va., Huntington—Cigars.—A. C. Yost, Portsmouth, Va., will, it is reported, establish cigar factory.

W. Va., Huntington—Shoes.—Mountain State Shoe Co., 10th St. between 2d and Third Aves., will improve and enlarge shoe factory.

W. Va., West Union—Window Glass.—Doddridge Window Glass Co. chartered with authorized capital of \$75,000 by John J. Foley, John M. Gribble, R. J. McConnell, S. P. Smith and E. C. Garrity.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ga., Ashburn.—Gulf Line Railway Co., W. T. Hargrett, general superintendent, Sylvester, Ga., awarded contract to W. C. James, Ashburn, to erect shops recently noted; to include 46x120-foot, 40x150-foot, 16x30-foot and 10x20-foot buildings; ordinary construction; metal shingles; iron sides; machinery mainly purchased. (See "Machinery Wanted.")

Miss., Hattiesburg—Gulf & Ship Island Railroad, W. H. Gardner, Jr., chief engineer, Gulfport, Miss., contemplates, it is reported, rebuilding shops.

N. C., Rocky Mount.—Atlantic Coast Line Railway Co., E. B. Pleasants, chief engineer, Wilmington, N. C., will construct 200x175-foot addition to machine and erecting shop, with high erecting bay to provide for 120-ton overhead traveling crane; in connection with erecting shop there will be two machine-shop bays of same length, each 50 feet; steel frame construction; brick enclosing walls; R. E. Smith, general superintendent motive power.

ROAD AND STREET WORK

Ala., Cullman.—Mullarky Construction Co., Ensley, Ala., is lowest bidder for construction of cement sidewalks; M. L. Robertson, Mayor. (Lately noted.)

Ala., Decatur.—City will construct certain asphalt macadam pavement, cement gutters and car-track pavement; bids received until June 6; H. A. Skeggs, Mayor. (See "Machinery Wanted.")

Ala., Selma.—City will construct about 5000 yards brick paving on concrete foundation, about 2000 feet granite curbing, necessary storm sewers, inlets, etc.; opened bids June 11; Julien Smith, City Engineer. (See "Machinery Wanted.")

Ark., Fort Smith.—City will construct concrete sidewalks; bids received until June 5; Fagan Bourland, Mayor. (See "Machinery Wanted.")

Ark., Nashville.—City will construct sidewalks. Address The Mayor.

Fla., Bradentown.—City voted \$20,000 bond issue for paving. Address The Mayor. (Lately noted.)

Fla., St. Augustine.—City will pave Orange St. (probably with asphalt macadam) and Saragossa St.; Eugene Masters, Mayor.

Fla., Tampa.—City contemplates bond issue for extension of paving system and other improvements; D. B. McKay, Mayor. (See "City and County.")

Ga., Elberton.—City will expend \$50,000 for street improvements. Address The Mayor.

Ga., Valdosta.—Lowndes County Grand Jury recommends issuance of \$200,000 road bonds.

Ky., Maysville.—City will macadamize W. 3d, Bridge, E. 2d, 4th and W. 2d Sts.; bituminous binder and concrete curb; postponed date of opening bids from May 22, as lately stated, to June 5; J. Wesley Lee, Mayor. (See "Machinery Wanted.")

La., Grant Parish.—Police Jury awarded contract to Francis T. Constant, Alexandria, La., at \$57,920 to construct road from Colfax

to Rochelle, distance of 32 miles. (Recently mentioned.)

Md., Annapolis.—City will pave 2d and Madison Sts. with bituminous macadam; also grade, set and reset curb, etc.; bids received until June 5; J. C. Little, City Engineer. (See "Machinery Wanted.")

Md., Baltimore.—City will construct roadway and paths in Wyman Park, construct storm-water drains, etc.; bids received until June 7; William S. Manning, general superintendent Park Commissioners. (See "Machinery Wanted.")

Md., Colesville.—Colesville district of Montgomery county will vote June 10 on \$12,000 bond issue for purchase of that portion of Washington, Colesville and Ashton turnpike in Colesville district and for improving about one mile of Columbia Rd. Address County Commissioners, Rockville, Md. (Recently mentioned.)

Md., Towson.—Baltimore County Highways Commission, E. Stanton Bosley, secretary, will receive bids until June 15 for building section of State Aid highway along Old Court Rd., between Quarry lane and Rockland, distance of 2.61 miles. (See "Machinery Wanted.")

Miss., Gulfport.—District No. 2 of Harrison county will construct 2 8-10 miles of gravel road and 15 4-10 miles dirt roads; bids received until June 7; W. A. Griffith, Secretary Road Commissioners District No. 2. (See "Machinery Wanted.")

Mo., St. Louis.—State is considering construction of road across Missouri from St. Louis to Kansas City, distance of 300 miles; State Highway Engineer has outlined three available routes for State roads between St. Louis and Kansas City; Herbert S. Hadley, Governor, Jefferson City, Mo., appointed committee of State Board of Agriculture, composed of N. H. Gentry of Sedalia, Fred D. Munson of Osceola and others, which will have general charge of investigation of different routes.

N. C., Morehead City.—Carteret Central Highway Co. incorporated to construct road from Morehead City to Craven county line; G. D. Canfield, president; E. H. Gorbam, secretary-treasurer.

N. C., Tarboro.—City voted \$25,000 for paving; John A. Weddell, City Clerk.

N. C., Waynesville.—Southern Assembly Rev. James Cannon, general superintendent, awarded contract to H. J. Cathey Construction Co., Asheville, N. C., for grading and incidental structures of about two miles driveway; to be completed by August 15; will also improve all present roads; J. W. Seaver, Jr., chief engineer in charge, Waynesville. (See "Land Developments.")

Okla., Muskogee.—Tenth St. paving (contract recently noted awarded to F. P. McCormick) will be of cement, gravel, sand and asphalt; all materials purchased.

Okla., Oklahoma City.—City Council awarded paving contracts aggregating \$250,000; streets are Linwood Blvd., Geaty, Byers and Agnew Aves. and Grand Blvd.; largest contracts were awarded to Cleveland (O.) Trinidad Paving Co. and J. O. Severns Paving Co.; Bob Parman, City Clerk.

Okla., Tulsa.—City awarded contract to H. Adams of Tulsa to construct 1000 feet of cement sidewalks.

S. C., Greenville.—City will pave W. Washington St. from Academy St. to Southern Railway passenger station. Address The Mayor.

S. C., Sumter.—City will open bids June 12 for constructing 12,000 square yards of pavement on Main St., recently noted; W. L. Lee, City Engineer. (See "Machinery Wanted.")

Texas.—G. L. Cade, chief assistant engineer Dallas county, Dallas, Tex., advises Manufacturers Record as follows relative to proposed trans-State highway: Most of the counties along proposed route interested; some have voted bonds; others considering bond issue; subject to be brought before State Legislature.

Tenn., Chattanooga.—Hamilton County Road Commissioners, E. D. Bass, chairman, will receive bids until June 15 to construct 32,000 square yards of pavement and 19,000 linear feet of concrete curb and gutter on Montgomery Ave., recently noted; 75,000 square yards of additional pavement with 42,000 linear feet of curb and gutter to be constructed on streets authorized and contracts to be let later. (See "Machinery Wanted.")

Tenn., Johnson City.—City will pave Roan St. and Watauga Ave. Address The Mayor.

Tenn., Knoxville.—Improvement Districts (Nos. 41, 89, 90, 91, 92) will be advertised by City Recorder; paving, approximately 30,000 square yards; J. E. Thompson, City Engineer. (Recently noted.)

Tenn., Knoxville.—City will grade, curb, gutter, pave, etc., N. Central, Eleanor, 8th and Deery Sts. and Clinch Ave.; bids received until June 2; W. P. Chandler, Recorder. (See "Machinery Wanted.")

Tenn., Nashville.—Board of Public Works awarded contract to M. J. Cuniff to construct granite curb and sidewalks on portions of First, Fifth and Seventh Aves., South.

Tenn., Springfield.—Robertson county has \$150,000 available for construction of 50-mile road recently noted; practically to follow present public road; 5 per cent. maximum grade; 30 to 34 feet between ditches; crushed stone surface, 9 feet wide, 8 inches thick, rolled; R. O. Gallagher, engineer; Joseph E. Washington, chairman, and Ed S. Eckles, secretary of Pike Commission; contemplated to let contract so that grading may begin early in July. (As previously stated, bids will be received until noon June 20; estimates and specifications to be had at office of Pike Commission, Springfield, Tenn.)

Tex., Beaumont.—City will pave Buford St. with 6 inches of shell; C. L. Scherer, City Engineer.

Tex., Dallas.—J. Early Lee, Street Commissioner, recommended award of contract for grading Bishop St. from 5th to Zang's Blvd. to A. F. Moberly at \$3551.70.

Tex., Dayton.—Dayton district of Liberty county voted \$275,000 bond issue for construction of shell road. Address Precinct Commissioners. (Recently mentioned.)

Tex., Denton.—City and Denton county will expend \$10,000 to pave public square; work by city's force; I. P. Por, Mayor. (Recently noted.)

Tex., Farmersville.—City will make improvements to streets, including gutters, culverts and crossings around public square and residence section, all of which will be of concrete; cost about \$10,000. Address The Mayor.

Tex., Fort Worth.—City will improve Daggett Ave. from Summit to South Main St., containing 14,373,332 square yards, and 9th St. from Commerce to Harding St., containing 9680 square yards; receives bids until June 6; F. J. Von Zuben, Acting City Engineer. (See "Machinery Wanted.")

Va., Fredericksburg.—Baltimore & Ohio Railroad, F. L. Stuart, chief engineer, Baltimore and Charles Sts., Baltimore, Md., will construct two paved driveways, one 600 feet long and 49 feet wide and other 500 feet long and 45 feet wide. (See "Railway Stations.")

Tex., Lockhart.—Road Precinct No. 4 of Caldwell county will vote June 24 on \$25,000 bond issue for macadamizing roads. Address County Commissioners.

Tex., Longview.—Gregg county will vote within 30 days on \$200,000 bond issue for road macadamizing. Address County Commissioners.

Tex., McGregor.—Precinct No. 5 of McLennan county voted \$100,000 bond issue for road construction. Address Precinct Commissioners. (Lately noted.)

Tex., Naples.—City is having surveys made by J. J. White, City Engineer of Tyler, Tex., preparatory to grading streets and laying concrete walks.

Tex., Richmond.—Fort Bend county will vote June 26 on \$75,000 bond issue for road construction. Address County Commissioners.

Tex., San Marcos.—Road District No. 1 of Hays county voted \$20,000 bond issue for road construction. Address County Commissioners. (Recently mentioned.)

Tex., Temple.—City awarded contract to Ockander Bros., Waco, Tex., to pave number of alleys in business section with vitrified brick.

Tex., Terrell.—City contemplates paving Moore Ave. from Rockwall Ave. to Texas Midland Railroad with vitrified brick; proposed that street be 70 feet wide, with sidewalks 15 feet wide on each side; estimated cost \$38,458.25. Address The Mayor. (City Commission lately noted as considering bond issue for sidewalk construction.)

Tex., Waco.—McLennan county will vote June 27 on \$900,000 bond issue for road improvements. Address County Commissioners.

Tex., Wharton.—City awarded contract for constructing five miles of concrete sidewalks. Address The Mayor.

Tex., Wharton.—City awarded contract to Davis Bros., Houston, Tex., to construct three miles of concrete sidewalks recently noted; will let contract June 19 for three additional miles of sidewalks; J. G. Johnson, engineer in charge. (See "Machinery Wanted.")

Va., Norfolk.—Norfolk & Portsmouth Traction Co. awarded contract to United States

Wood Preserving Co., 29 Broadway, New York, at about \$12,000 to pave Main St., Berkeley ward, from Berkley to Maple Ave.; city will contribute \$5925; W. A. Young is company's local representative. (Recently mentioned.)

Va., Richmond.—City will construct additional granite spall paving, granolithic curbs and gutter, sewers, vitrified-brick street crossing; also scarify, resurface and regravell certain streets; bids opened May 29; Charles E. Bolling, City Engineer.

Va., Wytheville.—J. H. & W. Wythe Hart lowest bidders, \$4700 per mile, to construct three miles macadam road at Ivanhoe; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (Lately noted.)

W. Va., Bluefield.—City will receive bids until June 16 for macadamizing Princeton Ave. from East End over-head bridge to corporate limits; J. T. Akers, auditor. (Bids lately noted as rejected and to be readvertised for. See "Machinery Wanted.")

W. Va., Huntington.—Cabell county voted \$300,000 bond issue to improve main county roads with asphaltum, brick, stone, granite block, macadam or other material; F. F. McCullough, clerk County Commissioners. (Lately noted.)

W. Va., Morgantown.—City will vote June 21 on \$100,000 bond issue for street paving and sewer construction. Address The Mayor.

W. Va., Shinnston.—Town voted \$10,000 bond issue for paving. Address Town Clerk. (Lately noted.)

SEWER CONSTRUCTION

Ala., Ozark.—City voted \$15,000 bond issue for construction of sewer system; natural drainage; no disposal plant; engineer not employed; construction bids not opened before August; J. E. Acker, Mayor.

Ark.-Tex., Texarkana.—City awarded contract at \$11,897.34 to Ockander Bros., Waco, Tex., to construct sewers in District No. 10, comprising 40 squares.

Fla., Bradentown.—City voted \$10,000 bond issue for extension of sewer system. Address The Mayor. (Lately noted.)

Fla., Tampa.—City contemplates bond issue for extension of sewerage system and other improvements; D. B. McKay, Mayor. (See "City and County.")

Ky., Dawson Springs.—City will construct various sewers; opened bids June 10; C. A. Niles, Mayor; W. A. McDonald, engineer, Central City, Ky. (See "Machinery Wanted.")

Md., Baltimore.—Calvin W. Hendrick, chief engineer Sewerage Commission, Room 904 American Bldg., has completed specifications for half of sewer to cover Jones Falls; after approval by commission, will invite proposals for construction; work to include three reinforced concrete tubes costing \$60,000 to \$70,000; other half will cost about same amount; other accompanying improvements will increase total cost to about \$2,000,000. (Lately mentioned.)

Mo., Paris.—City sewer system will consist of about 3.8 miles 8 to 15-inch vitrified pipe; estimated cost \$15,000; no disposal plant; 3 to 14-foot trench; Rollins & Westover, Kansas City, Mo., prepared plans and specifications, and will supervise construction. (Bids recently noted received until May 25.)

N. C., Charlotte.—City will vote July 4 on issuance of \$150,000 sewer bonds; Joseph Firth, City Engineer.

Okla., Tulsa.—City will construct sanitary lateral sewer through Blocks 66 and 96, original townsite, and Block 23, Owens addition, in Sewer Districts Nos. 21 and 8; bids received until June 5; T. C. Hughes, City Engineer. (See "Machinery Wanted.")

Okla., Tulsa.—City Commissioners awarded contracts at about \$35,000 for construction of sewers in six sewer districts.

Okla., Tulsa.—City Commissioners adopted plans for main East Side sewer; estimated cost about \$20,000; will be advertised; T. C. Hughes, City Engineer. (Recently noted.)

Okla., Muskogee.—City awarded contract to Nelson Bros., Parsons, Kans., at \$106,311.19 and to F. P. McCormick of Muskogee at \$49,713.85 to construct sanitary outlet sewer from west city limits to river; former have contract for sections A, B, C and D, reinforced concrete pipe; latter for sections E and F, monolithic concrete; Alexander Potter, consulting engineer, 115 Liberty St., New York; Charles Wheeler, Jr., City Clerk.

S. C., Dillon.—City voted \$80,000 bond issue for sewer system and water-works construction. Address The Mayor. (Lately noted.)

Tenn., Park (R. Station, Knoxville).—Park City Council rejected bids for construction of sanitary sewers and invited new bids; about \$3000 is to be expended this

year for sewer extension; A. J. Queener, Recorder. (Call for bids lately noted.)

Tenn., St. Elmo.—Town contemplates construction of sewer system. Address Town Commissioners.

Tex., Sweetwater.—City Council granted franchise to M. A. Joy, Terrell, Tex., for sewerage system.

Tex., Victoria.—City's plans for construction of storm-sewer system (recently noted) consists in laying of 24-inch pipe in four blocks; work to be done by city's force; material purchased. William J. Craff, Mayor.

Tex., Waco.—City will vote June 27 on \$85,000 bond issue for construction of additional storm and sanitary sewers. P. A. Gorman, Street Commissioner. (Lately noted.)

Tex., Waco.—City will vote June 27 on \$80,000 bond issue for extension of sanitary and storm sewer systems. Address The Mayor. (Recently mentioned.)

W. Va., Beckley.—City awarded contract to Wingate & McGhee to construct sewer system.

W. Va., Morgantown.—City will vote June 24 on \$100,000 bond issue for sewer construction and street paving. Address The Mayor.

W. Va., Williamson.—City will construct extension to Logan-street 41 inch sewer, length 300 feet, and to main sewer on Second Ave. fill, length 240 feet; also build sewer in alley along Norfolk & Western Railway right-of-way, lateral sewers in Peters St., E. Fourth Ave., Hartley, Talbot and Ethel Sts.; length of Peters St., 5300 feet; sewer to be 6, 8, 10, 12 and 15 inches in diameter; A. C. Pinson, Mayor. (See "Machinery Wanted.")

TELEPHONE SYSTEMS

Ala., Birmingham.—A. L. Fulenwider and associates purchased People's Telephone Co.; will extend and improve system.

Ga., Barnesville.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will remodel and extend telephone system; S. E. Dusenbury, local manager.

Ga., Dry Branch.—Dry Branch Telephone Co. incorporated with \$10,000 capital stock (not \$1000 as recently noted under Macon, Ga.); will install about 20 switchboards. Address T. S. Tharpe.

Ga., Columbus.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will construct underground conduit system north of 14th St. and south of 9th St.; H. Mosen is district manager.

Mo., Cuba.—Cuba & Oak Hill Telephone Co. incorporated with \$3000 capital stock by P. S. Wood, J. J. Toner, A. J. Shipley and others.

Okla., Lowery.—Lowery Mutual Telephone Co. incorporated by John H. Collins, W. B. Foreman and L. A. Moore.

Okla., Newport.—Lone Grove & Woodford Telephone Co. incorporated with \$1500 capital stock by C. E. Maddox, J. F. McCants, W. P. Smith and others.

Okla., Perry.—"Four D" Telephone Co. incorporated by August Kehres, Joe Jarousek, George Lumber and Peter Gordon.

S. C., Rock Hill.—Rock Hill Telephone Co. petitioned City Council for telephone franchise.

S. C., White Pond.—White Pond Telephone Co. incorporated with \$2000 capital stock; O. N. Courtney, president; W. B. Owens, vice-president; O. L. Weeks, secretary; J. W. Black, treasurer.

Tenn., Henry.—Henry Telephone Co. incorporated by H. C. Burnett, G. G. Baker, J. T. Allen and others.

Tenn., Lebanon.—Lebanon Home Telephone Co. will be incorporated by J. C. Saunders, R. P. McClain, F. C. Stratton, A. J. Casey and others.

Tenn., Strahl, R. F. D. from Persia.—Tennessee River Telephone Co. incorporated with \$5000 capital stock by C. M. Smith, R. D. Kellar, J. R. Roark and J. R. Sanders; will construct telephone system from Strahl to Romeo, and from Strahl to Rogersville.

Tex., Athens.—Athens Telephone Co. incorporated with \$25,000 capital stock by J. A. Jones, J. W. Murchison, E. A. Carroll and others.

Tex., Greenville.—Southwestern Telegraph & Telephone Co., Dallas, Tex., will erect brick building for central exchange and office.

Tex., Stamford.—Southwestern Telephone Co. will install metallic circuit.

W. Va., Fairmont.—East Side Telephone Co. incorporated with \$10,000 capital stock by A. A. Hamilton, D. S. Huffman, George A. Nuzum, Paul Hamilton and others.

W. Va., Parkersburg.—West Virginia Western Telephone Co. authorized to issue \$15,000

of receiver's certificates; \$10,000 for improvements and remainder for indebtedness.

W. Va., Wheeling.—Receivers of National Telephone Co. of West Virginia will make improvements to property known as West Virginia Western.

TEXTILE MILLS

Ala., Anniston.—Net and Twine.—American Net & Twine Co. will enlarge plant; erect addition to main mill building, 60x300-foot warehouse of brick construction and 20 operatives' cottages; install new additional machinery, doubling capacity; present equipment 10,000 ring spindles and accompanying machinery; reported cost about \$150,000. (Lately mentioned.)

Ga., Carrollton.—Special Weaves etc.—Mandeville Mills ordered 20 automatic looms for trial; if satisfactory, will order 120 more automatic looms from same manufacturer, thus increasing to 140 automatic looms to replace present 120 plain looms; will erect three-story 100x112-foot addition to main building and 16x100-foot addition to picker-room of No. 2 yarn mill and install 10,000 spindles next fall; yarn-mill addition at cost of probably \$130,000; now has 17,336 ring spindles, 4688 twister spindles, 120 looms, etc.

Ga., Columbus.—Plaids, etc.—Swift Manufacturing Co.'s two additional buildings, lately noted contracted for, are additions to dye and picker house; buildings and machinery will cost about \$20,000.

N. C., Dallas.—Hosiery Yarns.—Monarch Mills will add four spinning frames and one card; has 5000 ring spindles, 11 cards, etc.

N. C., Charlotte.—Damask.—Fidelity Manufacturing Co. will add looms, as reported lately; awarded contract for 50.

N. C., St. Pauls.—Knitting Yarns.—St. Pauls Cotton Mill Co. will increase equipment 50 per cent.; has ordered 8 frames with 1940 ring spindles, 12 frames with 72 spindles—universal winders, 368 spindles—speeder, and four cards; cost about \$20,000. (Lately mentioned.)

S. C., Bowling Green.—Knit Goods.—T. J. Patrick, S. W. Patrick and J. W. Smith purchased Bowling Green Knitting Mills for \$3700; plant includes building, 32½ acres of land, knitting machinery, etc.

S. C., Batesburg.—Ticking, etc.—Middleburg Mills increased capital stock from \$300,000 to \$300,000; has 9728 ring spindles, 310 wide and narrow looms, etc. (Lately mentioned.)

S. C., Spartanburg.—Print Cloth, etc.—Saxon Mills will add two pickers, six cards, two roving frames and two spinning frames; contract awarded; this installation will increase equipment to 62 45-inch cards, 40,000 spindles and 1000 looms.

Tex., Cuero.—Sheeting, etc.—Gudalupe Valley Cotton Mills addition will be of mill construction and 60x100 feet; will install 5000 spindles; D. J. Hayes Co., Houston, Tex., is engineer in charge; John Hill of Cuero is architect. (Lately mentioned.)

Tex., Galveston.—Cotton Waste.—Galveston Waste Mills will, it is reported, install additional machinery; plant sold to Leonard Joseph of Phoenix Iron & Steel Co., who is reported as to visit Europe to purchase additional equipment mentioned.

Tex., Huntsville.—Cotton Cloth.—Board of Prison Commissioners awarded contract for additional new machinery; will include 20 looms, beater breaker, cards, drawing frame, warper, slasher, etc.; estimated cost \$6300. (Lately mentioned.)

Va., Suffolk.—Knit Goods.—Carr Mills organized with G. Lloyd Bell, president; W. C. Cross, vice-president; F. A. Holladay, secretary; J. O. Carr, general manager; capital stock \$15,000, with privilege of increasing to \$50,000.

WATER-WORKS

Ala., Dothan.—City has indefinitely postponed letting of contract for construction of water-works; R. W. Lisenby, clerk. (City recently noted to receive construction bids until May 22.)

Ark., Blytheville.—Blytheville Water Co. awarded contract to United Well Works, J. R. Pennington, general manager, Stuttgart, Ark., for 1500-foot 8-inch artesian well; city previously noted to grant franchise for construction of water-works. (See "Machinery Wanted.")

Ark., England.—City will open bids July 1 for 30-year franchise for deep-well water system and electric-light plant. H. Gallo-way, Recorder. (See "Machinery Wanted.")

Ark., Mena.—City will let contract in about 30 days for construction of new distribution system for water-works district No. 2; separate proposals will be entertained for materials and construction; plans and specifications recently noted prepared by Winters & Dove, 810 First National Bank Bldg., Fort Smith, Ark. (See "Machinery Wanted.")

Fla., Bradentown.—City voted \$15,000 bond issue for water-works improvements. Address The Mayor. (Lately noted.)

Fla., Tampa.—City contemplates purchase of water-works plant, now under private ownership; D. B. McKay, Mayor. (See "City and County.")

Ga., Macon.—City Council formulated plan for laying water mains to South Macon and North Highlands estimated to cost \$50,000; John T. Moore, Mayor. (Further facts lately noted.)

Ga., Washington.—City Council proposes to issue \$5000 of bonds to install filter at pumping station. Address The Mayor.

Md., Baltimore.—Board of Awards rejected bids for installation of pump at Mount Royal Pumping Station and ordered that new specifications be prepared. Alfred M. Quick, Water Engineer. (Call for bids lately noted.)

Miss., Brookhaven.—Illinois Central Railroad Co., A. S. Baldwin, chief engineer, Chicago, Ill., will make improvements to water-works; plans and construction by company's force. (See Miss., McComb.)

Miss., Crystal Springs.—Illinois Central Railroad Co., A. S. Baldwin, chief engineer, Chicago, Ill., will make improvements to water-works; plans and construction by company. (See Miss., McComb.)

Miss., McComb.—Illinois Central Railroad Co., A. S. Baldwin, chief engineer, Chicago, Ill., will improve water-works facilities at McComb, Crystal Springs and Brookhaven. Miss.: McComb—100,000-gallon reservoir, two miles pipe line, cost \$2100; Brookhaven—40,000-gallon capacity, 3½ miles pipe line, cost \$4000; Crystal Springs—400,000-gallon capacity, 1 mile pipe line, cost \$12,000; plans and construction by company; pump-house and pumper's frame dwelling to be erected; C. E. Thomas, general foreman of water-works. (Recently reported to purchase reservoir site.)

Mo., Anderson.—Anderson Water, Light, Heat & Power Co. incorporated with \$30,000 capital stock by B. S. Dunn, W. J. Chamblis and R. A. Bates.

Mo., Milan.—City voted to construct water-works. Address The Mayor.

Mo., St. Charles.—City voted \$30,000 bond issue for water-works improvement; J. N. Olson, Mayor.

N. C., Charlotte.—City will vote July 4 on issuance of \$350,000 water-works bonds; Joseph Firth, City Engineer.

Okla., Comanche.—City voted bond issue for water-works extension. Address The Mayor.

Okla., El Reno.—City is having plans prepared for extension of water-works; P. P. Duffy, Mayor.

Okla., Nowata.—City voted \$75,000 of water-works extension bonds; will issue bonds on September 1; A. H. Gillespie, Mayor.

Okla., Pawhuska.—City is contemplating extension of water-works. Address Mayor Ferguson.

Okla., Tallhina.—Mullergren Engineering Co., Poteau, Okla., submitted proposition to city to construct water-works and electric-light plant; \$20,000 to be expended; daily capacity water-works plant 200,000 gallons; brick power plant; J. E. Emmert, Mayor. (See "Machinery Wanted.")

Okla., Tulsa.—City Commission has engaged D. C. Maury, hydraulic engineer, Peoria, Ill., to prepare plans and estimates for extension of water-works.

S. C., Dillon.—City voted \$80,000 bond issue for water-works and sewer construction. Address The Mayor. (Lately noted.)

Tex., Brenham.—City awarded contract to Alexander Griffin to erect fireproof building over water-works plant; 85x50 feet; cost \$5000; no machinery or equipment needed; William Lusk, Mayor. (Previously noted.)

Tex., Corpus Christi.—City contemplates improvements to water-works. Address The Mayor.

Tex., Dallas.—City awarded contract to Sharp & Co. at \$2.50 per foot to drill three wells; wells to be about 800 feet deep; estimated cost, \$6000.

Va., Richmond.—City will receive bids until June 14 for furnishing and erecting two centrifugal pumps, piping and water meters; also two 200-horse-power electric motors, switchboard and wiring; E. E. Davis, superintendent water department. (Recently mentioned. See "Machinery Wanted.")

W. Va., Charleston.—City will receive bids until June 14 for furnishing and erecting two centrifugal pumps, piping and water meters; also two 200-horse-power electric motors, switchboard and wiring; E. E. Davis, superintendent water department. (Recently mentioned. See "Machinery Wanted.")

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Ky., Louisville.—Furniture.—Inman Furniture Co. has organized with Charles W. Inman, president; Hesse Runyan, secretary-treasurer; Theodore Kennitz, superintendent; has building and machinery. (Recently noted incorporated with \$150,000 capital stock.)

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Ga., Waycross.—J. H. Dinkins' store; building owned by W. D. O'Quinn.

Ky., Louisville.—Falls City Brewing Co.'s stable; loss \$4000.

Ky., Louisville.—Colored Odd Fellows' building; loss about \$4000.

Ky., Paducah.—W. Y. Noble's warehouse, loss \$16,000; Illinois Central Railroad's warehouse, loss \$10,000; A. S. Baldwin, chief engineer, Chicago, Ill.

Ky., Tompkinsville.—Short Bros.' store and other buildings; loss \$30,000.

La., Boleyn.—Postoffice building; Boleyn Lumber Co.'s commissary.

Md., Hancock.—Hancock Shale & Brick Co.'s plant damaged.

Md., Elloak.—Eagle Lumber Co.'s sawmill; estimated loss \$3000.

Miss., Monticello.—Hickman, Son, Butler & Co.'s store building; loss \$7000.

Mo., St. Louis.—General Paper Stock Co.'s factory and warehouse at 7th and Carr Sts.; building owned by James R. Carpenter; loss on building about \$75,000, and on stock and machinery \$50,000.

N. C., Durham.—Wenable Tobacco Co.'s priory.

N. C., Durham.—Chatham Knitting Mills Co.'s plant damaged; loss \$25,000.

N. C., Mt. Airy.—N. P. Short's residence, barn and two stores.

N. C., Raleigh.—St. Agnes' Hospital damaged.

N. C., Raleigh.—Dr. H. E. Wilson's residence on Shepherd St.

Okla., Alderson.—Tom Lawshe's store; loss \$10,000 to \$12,000.

Okla., Bennington.—Murray Bros.' building; G. T. James' meat market; J. R. McDonald's store; loss \$50,000.

Okla., Colgate.—Bromide World (newspaper plant); loss \$1500; owned by Bryce, Hickman & Stephens.

S. C., Spartanburg.—J. I. Green's seven dwellings; loss \$3500.

Tenn., Nashville.—Neuhoff Abattoir & Packing Co.'s plant at 1310 Adams St., North Nashville; loss about \$10,000.

Tex., Dallas.—H. Bowdlen's residence at 912 S. Akard St., owned by Mrs. L. Blaylock; loss \$4500.

Tex., Haskell.—Garnier & Hugon's building damaged; loss \$8000.

Tex., Snyder.—H. P. Welborn's building; loss \$10,000; Westbrook & Co.'s two stores; loss \$10,000.

Va., Norfolk.—The Ferries Co.'s Chestnut St. ferry bridge damaged; loss \$3000 to \$4000; R. E. Jordan, president.

Tex., Sweetwater.—Hugginbotham-Harris Lumber Co.'s office building and storeroom.

Tex., Dallas.—William McKee's store building.

Tex., Timpson.—J. D. Allgood's residence; loss \$5000.

Tex., Terrell.—R. H. Cook's residence on 8th St.; loss \$3300.

Va., Emporia.—J. L. Ivey & Son's sawmill; loss about \$1000.

Va., Fredericksburg.—W. H. Owens states that building, as recently reported, was not burned.

Va., Keysville.—Keysville Mills; estimated value \$25,000.

Va., Snell.—William P. Maite's sawmill; loss \$1200.

W. Va., Hinton.—Chesapeake & Ohio branch Young Men's Christian Association building.

W. Va., Huntington.—Florentine Hotel; loss \$50,000.

W. Va., Huntington.—Beader box plant, operated by M. L. Luncan and others; estimated loss, \$1800.

W. Va., Weston.—Weston Lumber Co.'s plant; loss \$20,000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., St. Petersburg.—F. R. Singlehurst, proprietor of Gulf Novelty Works, will erect store and apartment building. (See "Stores.")

Ga., Atlanta.—W. H. Adkins is having plans prepared by Frank C. Walter, Atlanta, Ga., for apartment-house on East 14th St.; to contain two apartments; eight rooms each; brick; cost \$15,000.

Mo., Kansas City.—Olive Investment Co., 214 Hall Bldg., will expend \$8000 to erect apartment and store building recently noted; 46x60 feet. (See "Stores.")

Mo., Kansas City.—D. W. Dehoney will erect apartment-house; brick; cost \$12,000.

Mo., St. Louis.—Acron Realty & Investment Co. will erect tenement house; three stories; cost \$20,000.

Mo., St. Louis.—Dr. T. N. Crapp will erect tenement-house; two stories; cost \$4500.

Tenn., Nashville.—Thomas F. Swords will erect apartment-house; cost \$5000.

Tex., San Antonio.—M. and Rosa Barnett of Houston, Tex., purchased Moose Building and will convert into apartment-house, expending \$200,000 for improvements.

Tex., Houston.—J. S. A. Frank has plans by E. Lane, Houston, for apartment-house; three stories; lower floor for stores; upper floors for apartments; pressed brick and terra-cotta.

ASSOCIATION AND FRATERNAL

Ark., Little Rock.—Benevolent Protective Order of Elks reported to accept plans by Theodore Sanders, Little Rock, for \$5x5-foot building at Scott and 4th Sts.; cost \$85,000. (Previously noted.)

Ky., Lexington.—Board of directors, Pythian Home of Kentucky, W. C. G. Hobbs, president, will expend \$20,000 to erect girls' dormitory; three stories and basement; 20 bedrooms; mill construction; cost of heating \$1800; lighting not determined; plans by Lyman Walker, Covington, Ky.; board of directors will supervise construction; no general contract. (Recently noted to receive bids until June 1 for excavation, getting out stone, etc.)

Mo., Springfield.—Knights of Pythias will open bids until June 5 to erect Pythian home to cost about \$100,000; J. H. Hawthorne, Kansas City, Mo., chairman of committee.

Mo., Kansas City.—Ararat Temple, Mystic Shrine, Harry G. Henly, recorder, will remodel building (recently noted) purchased; work will be done by local contractors.

Okla., Lawton.—Oklahoma Press Association, Horace W. Shepard, president, Altus, Okla., plans to erect \$10,000 clubhouse.

Okla., Muskogee.—Benevolent Protective Order of Elks will erect two-story addition to lodge building.

Okla., Sallisaw.—Trustees of Masons and Odd Fellows' lodges, W. O. Reeves, secretary of committee, will receive bids until 7 P. M. June 5 to erect three-story brick building; 40x100 feet; certified check for \$20.

S. C., Greenville.—Benevolent Protective Order of Elks will erect lodge building; five or more stories.

Tenn., Coal Creek.—Ancient Free and Accepted Masons, Coal Creek Lodge No. 492, contemplate erection of lodge building; three stories; brick; first floor to contain stores; cost \$6000 to \$7000; plans not determined; E. S. Mattier, secretary. (Recently noted.)

Tenn., Dyersburg.—Knights of Pythias will erect lodge building; to contain swimming pool, bowling alley, etc., in basement; cost \$20,000.

Tex., Bay City.—American Woman's League will erect clubhouse.

Tex., Corpus Christi.—Ancient Free and Accepted Masons will erect Masonic Temple; cost \$20,000.

Tex., Eagle Lake.—Ancient Free and Accepted Masons will erect Masonic Temple; portion of structure two stories; brick.

Tex., Marshall.—Ancient Free and Accepted Masons will erect lodge building; two stories; brick and concrete; heating and refrigerating plants in basement.

BANK AND OFFICE

Ark., Little Rock.—Chamber of Commerce, Dan Cutting, secretary, will improve building, including remodeling offices on second floor and converting third floor into auditorium.

D. C., Washington.—John F. and Robert C. Wilkins, Hibbs Bldg., have plans by J. H. de Sibour, Hibbs Bldg., Washington, for office building near 15th and H Sts. N. W.; nine stories; white limestone; interior finish of marble and artificial tan stone; elevator doors and cars; ornamental fretwork over main entrance; all doors and window frames on first floor and railing of marble, stairways of bronze; steel construction; fireproof; engine-room in rear of basement; 96 offices; will be constructed around three sides of hollow square, with open court 25x32 feet.

Fla., St. Petersburg.—Central National Bank rejected all bids to erect bank building and will have charge of its own construction, awarding contracts for different portions of work to local firms; plans by Biggers & Muller, 601 Empire Bldg., Atlanta, Ga., call for two and three-story structure; reinforced concrete; clay-tiled roof; steel frame; iron stairways, etc. (Recently mentioned.)

Fla., St. Petersburg.—Bids received by

Bonniwell & Son, architects, St. Petersburg, until 6 P. M. May 29 to erect addition to Independent Bldg. at 4th St. and First Ave., South; plans and specifications at office of architects.

Ga., Americus.—Commercial City Bank will erect bank building.

Ga., Americus.—Commercial City Bank will erect \$25,000 bank and office building; Indiana limestone; stone columns extending from ground to entablature on front and sides; T. F. Lockwood, Columbus, Ga., is preparing plans.

Ga., Byromville.—Farmers & Merchants' Bank organized with John D. Walker, president, Sparta, Ga.; will erect bank building; S. L. Webb, J. D. Maxwell and John Roberson, building committee.

Ga., Macon.—Dr. E. P. Frazer will open bids in about 30 days to erect office building; 10 stories and basement; 45 feet 10 inches by 100 feet; fireproof construction; steam heat; gas and electric lighting; two electric elevators; cost \$75,000. (Recently noted.)

Ky., Louisville.—First National Bank has plans by Grossmann-Mahler Architectural & Construction Co., Wilmington, N. C., for bank building; 28x90 feet; pressed brick; stone trimmings.

Ky., Louisville.—Inter-Southern Life Insurance Co. is having plans prepared by Brinton B. Davis, 909-15 Atherton Bldg., Louisville, for office building; 80x103 feet; fireproof; low-pressure steam heat; electric lights; five-plunger elevator; cost about \$750,000. (Previously noted to erect this structure.)

Ky., Louisville.—Inter-Southern Life Insurance Co., James R. Duffin, president, has plans by Brinton B. Davis, Louisville, for office building; 80x103 feet; fireproof construction; cost \$750,000. (Previously noted.)

Ky., Louisville.—J. P. Starks is reported to erect 15-story office building; plans not determined.

Ky., Louisville.—Harry L. Lewman of Falls City Construction Co., William N. Cox, president of Louisville Public Warehouse Co., and J. Burel Lewman will organize company with \$300,000 capital stock to erect office building; 10 stories, three or four stories of stone; upper floors of pressed brick; 52½x105 feet; interior appointments in marble and mahogany; total floor space of 35,000 to 40,000 feet; about 180 offices; fireproof construction; cost about \$300,000; plans by H. Woollers, Louisville, Ky. (Recently noted.)

La., New Orleans.—Whitney-Central Bank will expend \$50,000 for improvements to former Whitney-Central Bank Bldg., including safety deposit vault, etc.

Miss., Oayka.—Farmers' Bank of Oayka will erect bank building.

Miss., Seminary.—E. E. Collins will erect store and office building. (See "Stores.")

Mo., Joplin.—C. A. Dieter will erect office and store building to cost \$30,000. (See "Stores.")

Mo., Kansas City.—C. H. Sharp will not erect two additional stories to 10-story office building, as recently reported.

Mo., St. Louis.—National Lead Co. will erect office building; two stories; cost \$15,000.

N. C., Catawba.—People's Bank, J. H. Pitts, president, will erect bank building; 30x40 feet; fireproof construction; cost \$2000; architect not selected.

N. C., Elkin.—W. M. Maberry will erect store, office building and hall. (See "Stores.")

N. C., Fayetteville.—Cumberland Savings & Trust Co. will erect bank building.

N. C., Raleigh.—Raleigh Banking & Trust Co., Charles E. Johnson, president, is having plans prepared by P. Thornton Marye, Atlanta, Ga., for bank and office building to replace present structure; 80x120 feet; three stories; reinforced concrete; white marble veneer; white marble columns; construction will soon begin.

N. C., Raleigh.—Citizens' National Bank will erect bank and office building; J. G. Brown, president, advises Manufacturers Record that no details have been determined.

N. C., Wadesboro.—Dr. E. A. Covington is reported to erect office building.

S. C., Chester.—Commercial Bank has plans by Shand & Lafaye, Columbia, S. C., for bank building; two stories; red pressed brick; stone base and trimmings; plate-glass front flanked on each side by high columns; three vaults; steam or hot-water heat.

S. C., Chester.—Commercial Bank is having plans prepared by Shand & Lafaye, Columbia, S. C., for bank building; two stories; brick; stone trimmings; steam or hot-water heat.

S. C., Columbia.—Palmetto National Bank, John J. Siebels, vice-president, has not selected architect to prepare plans for 14-story bank and office building recently noted.

S. C., Fort Lawn.—Fort Lawn Deposit Bank will expend \$3000 to erect bank building; two stories; 25x50 feet; mill construction; heating not decided; electric lighting; plans by J. S. Starr, Rock Hill, S. C.; recently noted to open bids June 15. (See "Machinery Wanted.")

Tenn., Minor Hill.—Planters and Merchants' Bank, John S. Harris, president, will erect bank building of ordinary construction; plans not determined. Address proposals to C. T. Powell.

Tex., Dallas.—W. E. Bellhaz, Dallas, prepared plans to remodel top floor of Schoellkopf Bldg. and erect three additional stories.

Tex., Kingsville.—St. Louis, Brownsville & Mexico Railroad, E. C. Burgess, engineer maintenance of way and construction, Kingsville, will, it is reported, soon award contract for proposed \$50,000 general office building.

Tex., Lindale.—Guaranty State Bank is ready to receive bids to rebuild bank building recently reported burned; 22x60 feet; ordinary construction; cost within \$2000. (See "Machinery Wanted.")

Tex., Menard.—D. G. Benchoff will erect bank building; stone construction; will be occupied by First National Bank of Menard.

Tex., Floydada.—First National Bank will erect \$25,000 bank building.

Tex., Pittsburg.—Pittsburg National Bank will expend \$9000 to erect bank and office; two stories; 40x100 feet; mill construction; steam heat; plans by Taylor & Wolfe, Fort Worth, Tex.; bids opened May 29. (Recently noted.)

Tex., Pecos.—Pecos Land Co. will soon award contract to erect office building; two stories; brick; plans by Mr. Kelly of Pecos. (Previously noted.)

Tex., Waco.—Bids received at office of George C. Burnett, architect, Waco, Tex., until June 8 to erect five-story and basement reinforced concrete, brick and terra-cotta store and office building for Wm. Cameron & Co., Inc.; plans and specifications at architect's office at Waco; office of William Cameron & Co., Inc., Waco; Chronicle Bldg., Houston, Tex., and building exchanges at Dallas, Tex.; Kansas City, Mo.; St. Louis, Mo., and Chicago, Ill. (Previously noted.)

Tex., Yoakum.—Green & Welhausen will open bids June 12 to erect bank, office and store building; 50x140 feet; ordinary construction; cost \$45,000; plans by J. Henry Yentzen, Yoakum; recently noted to open bids about June 8. (See "Machinery, etc., Wanted.")

Va., Bowling Green.—Carolina County Bank, J. T. Richards, president, will erect bank building; fireproof construction; 30x46 feet; stores; cost \$7000; plans are being prepared.

Va., Portsmouth.—First National Bank purchased Elks building at 306-8 High St. and will remodel for bank, install steam-heating plant, etc.

CHURCHES

Fla., St. Petersburg.—Congregational church, Rev. N. Matthews, pastor, will receive bids through Edgar Ferndon, architect, St. Petersburg, until June 15 to erect edifice; plans and specifications at architect's office; 80x90 feet; cost \$20,000. (Recently detailed.)

Fla., Tampa.—Father Navin, S. J., is having plans prepared by A. H. Johnson, Tampa, for proposed Catholic church; cost \$8000.

Ga., Augusta.—Woodlawn Methodist Church on 15th St. will erect edifice. Address The Pastor of Woodlawn Methodist Church.

Ga., Macon.—Oak St. African Methodist Episcopal Church, Rev. John Harmon, pastor, will erect edifice; brick; 70x70 feet; basement divided into Sunday-school and various other departments; main auditorium to seat 900; gallery to seat 300.

Ga., Macon.—Christ Episcopal Church will erect chapel in Cherokee Heights. Address The Rector, Christ Episcopal Church.

Ky., Franklin.—W. B. Douglas, chairman, will receive bids until 3 P. M. June 5 to erect Methodist Episcopal church; plans and specifications at office of Runge & Dickey, architects, 403 Cole Bldg., Nashville, Tenn., or of W. B. Douglas, at Franklin.

La., New Orleans.—Holy Rosary Parish, Rev. W. J. Vincent, pastor, plans to erect edifice.

Md., Baltimore.—Eutaw Place Baptist Church, Eutaw Pl. and Delphin St., has plans by Glidden & Friz, Glenn Bldg., Baltimore, for mission church; two and a half stories; stone; Italian romanesque style; hardwood interior fittings. (Recently noted.)

Md., Baltimore.—First Church of Christ Scientist, Preston and Cathedral Sts., has plans by Charles E. Cassell & Son, Law Bldg., Baltimore, for edifice; Dr. J. E. Gilpin, Chairman of Board, 139 W. Lanvale St., advises that final plans have not been decided.

Miss., Shannon.—Baptist Church, Rev. J. A. Ousley, pastor, will expend \$3000 to erect edifice; 60x40 feet; ordinary construction; plans not determined. Address proposals to J. L. Arnold. (Recently noted.)

Mo., St. Louis.—Fourth Baptist Church will erect addition to and alter edifice; cost \$5000. Address The Pastor, Fourth Baptist Church.

N. C., Asheville.—Trinity Church will soon award contract for proposed rebuilding of edifice. Address The Pastor, Trinity Church.

N. C., Kannapolis.—Kannapolis Baptist Church will open bids July 1 to erect edifice; 45x60 feet; brick and hardwood finish; heating not decided; electric lighting; cement sidewalks; cost \$5000.

Okla., Ardmore.—Broadway Baptist Church, Rev. F. M. Masters, pastor, has plans by W. H. Tackett, Ardmore, to remodel present edifice; will erect two additions and raise roof; brick; shingle roof; electric lighting; natural gas heating; material to be purchased locally. (Recently noted.)

Okla., Oklahoma City.—First Lutheran Church has plans by Van Slyke & Woodruff, Oklahoma Bldg., Oklahoma City, for edifice; site 100x100 feet; brick; Gothic style; main floor with seating capacity of 25 and balcony to seat 100.

S. C., Aiken.—First Baptist Church, Rev. Philip J. McLean, pastor, contemplates erection of edifice to cost \$15,000; plans not determined. (Recently noted.)

S. C., Clio.—Clio Baptist Church, Rev. J. I. Allen, pastor, will erect edifice to cost \$12,000; J. J. Lane, chairman building committee. (Recently noted.)

S. C., Fairfax.—Baptist congregation will erect edifice. Address The Pastor, Baptist Church.

S. C., Greenville.—Buncombe Street Church will erect edifice; cost \$40,000. Address The Pastor, Buncombe Street Church.

S. C., Mullins.—St. Mullins Baptist Church has plans by Lane & Huggins, Mullins, for edifice; seating capacity 500; select brick; limestone trimmings; patent plaster; metal roof; tiling; rolling partitions; cost \$14,000.

Tenn., Memphis.—Linden Avenue Christian Church plans to erect church and parsonage; cost, including site, \$100,000; plans not determined; W. H. Shaffer, pastor.

Tex., Dallas.—St. John's Methodist Church South, will erect edifice; T. F. Frazier, J. C. Moffett, J. G. Shaffer and others, trustees.

Tex., Galveston.—Baptist Church organized; Rev. Robert D. Wilson, pastor; will erect edifice to cost \$10,000.

Tex., San Antonio.—San Antonio Methodist Church Society, Rev. S. H. C. Burgin, presiding elder, will erect edifice.

Tex., Waxahachie.—Main St. Christian Church will erect edifice; cost \$20,000. Address The Pastor, Main St. Christian Church.

Tex., Taylor.—First Presbyterian Church plans to erect edifice; brick and stone; James A. Thompson and Sol G. Yakey, committee.

Tex., Waxahachie.—Christian Church will erect edifice; cost \$20,000. Address The Pastor, Christian Church.

Tex., Yoakum.—First Baptist Church will adopt plans at once and let contract within 30 or 60 days to erect edifice; 60x100 feet; ordinary construction; cost \$20,000 to \$25,000. Address proposals to W. B. Lansing. (Recently noted.)

Va., Coeburn.—Methodist congregation will erect edifice; pressed brick and stone; cost \$7000. Address The Pastor, Methodist Church.

Va., Pocahontas.—Joseph Miller will receive bids until June 5 to erect synagogue; plans and specifications at office of Mr. Miller.

W. Va., Williamston.—First Methodist Episcopal Church, F. L. Fenton, president of building committee, plans to erect edifice to cost \$15,000 to \$20,000.

CITY AND COUNTY

Ala., Mobile.—Armory.—City is having plans prepared to remodel armory; will enlarge drillroom; T. W. Kearns, building inspector. (Recently noted.)

Ala., Montgomery.—Jail.—Montgomery County Commissioners may be addressed relative to erection of fireproof jail; cost \$5000. (City recently noted to erect this structure.)

Ark., Benton—Jail.—Saline County Commissioners will receive sealed proposals until noon June 16 to erect jail; separate bids will be entertained for cell work; plans and specifications may be seen at office of County Clerk at Benton; also at office of Frank W. Gibb & Co., architects, Gazette Bldg., Little Rock, Ark.; bids must be accompanied by certified check for 3 per cent. of bid; usual rights reserved; W. H. Evans, Commissioner. (Previously noted.)

Fla., Tampa—City Hall.—City contemplates voting on bond issue of \$1,000,000 or \$1,500,000 for erection of city hall, purchasing and improving additional parks, extension of paving and sewerage system and other public improvements; also contemplates purchase of water-works plant from private owners. D. B. McKay, Mayor.

Ga., Athens—Jail, etc.—Clarke County Commissioners contemplate issuance of \$200,000 of bonds to erect jail, sheriff's residence and courthouse. (See "Courthouses.")

La., St. Bernard—Jail.—St. Bernard parish has plans by Henry B. Daboval, St. Bernard, for jail at Stock Landing; reinforced concrete; 40x20 feet; three cells, 9x14½ feet each; courtroom 24 feet 8 inches by 19 feet; fireproof construction.

Mo., Kansas City—Hospital.—Board of Public Works will receive bids until June 6 to erect building for isolation department of General Hospital near 24th St. and McCoy Ave.; also receive bids for plumbing and gas piping, ventilating and heating; plans by F. C. Gunn, 700 Postal Bldg., Kansas City.

Mo., Fulton—Library.—City will erect Carnegie library; cost \$12,000. Address The Mayor.

Okla., Bartlesville—Jail.—Washington county will vote June 26 on \$150,000 bond issue to erect courthouse and jail. Address County Commissioners.

S. C., Camden—City Hall, etc.—City will award contract about July 1 to remodel city hall and opera-house; three stories; brick; steel girders; seating capacity of opera-house 800; cost \$15,000; plans by Arthur W. Hamby, Columbia, S. C.

S. C., Columbia—Fire Station.—City will award contract to local contractor to erect fire station to cost \$8000. (Recently noted.)

Va., Alexandria—Armory.—Alexandria Light Infantry, F. L. Slaymaker, captain, 313 King St., plans to expend \$9000 for improvements to armory hall; 105x65 feet; ordinary construction; brick; steam heat; lighting not determined; architect not selected; pending action of City Council only tentative plans have been prepared; invite bids for raising roof six feet. (See "Machinery Wanted.")

Va., Richmond—Stables.—H. J. Cohn, superintendent, states that no plans have been made to erect stables for Street Cleaning Department; appropriation for site only has been made. (Recently noted.)

W. Va., Pineville—Jail.—Wyoming county, George W. Goode, Commissioner County Court, Newfound, W. Va., will receive bids until June 8 to erect jail; plans and specifications at office of B. F. Smith, 1747 P St. N. W., Washington, D. C., or at County Clerk Harry E. Stewart's office, Pineville.

COURTHOUSES

Ga., Athens—Clarke County Commissioners contemplate issuance of \$200,000 of bonds to erect courthouse, jail and sheriff's residence; J. M. Hodgson, chairman County Supervisors.

Mo., Bowling Green.—Pike county will vote August 1 on \$75,000 bond issue for county courthouse; C. W. Davis, County Clerk. (Recently noted.)

Okla., Bartlesville.—Washington county will vote June 26 on \$150,000 bond issue to erect courthouse and jail. Address County Commissioners.

DWELLINGS

Ala., Anniston.—American Net & Twine Co. will build 20 cottages for operatives; main offices at East Cambridge, Mass.

Ala., Gadsden.—Dr. Savage of Greenville, Ala., will erect bungalow.

Ark., Little Rock.—W. E. Berthe will erect residence; two stories; frame; cost \$3000.

D. C., Washington.—M. L. Gottwals, 712 7th St. N. E., will erect five dwellings at 712-20 7th St. N. E.; two stories; brick; cost \$11,000; plans and construction by owner.

D. C., Washington.—J. L. Warren, 416 5th St. N. W., has plans by Carroll Beale, 902 F St. N. W., Washington, for four dwellings at 2900, 2901, 2904 and 2906 26th St. N. W.; two stories; frame; cost \$9000.

D. C., Washington.—F. T. Sanner, 1333 G

St., N. W., has plans by A. H. Beers, 1342 New York Ave. N. W., Washington, for dwelling at 1725 S St. N. W.; three stories; brick; cost \$8000.

D. C., Washington.—H. Wardman, 1342 New York Ave. N. W., Washington, for two dwellings at 2351-53 Woodley Rd.; two stories; brick; cost \$20,000; construction by owner.

D. C., Washington.—L. W. Gibson, 912 Kennedy St. N. W., has plans by W. S. Plager, 210 N. Capitol St., Washington, for dwelling at 912 Kennedy St. N. W.; two stories; brick; cost \$5000.

D. C., Washington.—Franklin T. Sanner and Wm. A. Hill, both of 1333 G St. N. W., will erect residence on Dent Pl. N. W.

D. C., Washington.—L. E. Breuninger, 1756 Park Rd. N. W., has plans by N. R. Grimm, 627 F St. N. W., Washington, for dwelling at 1334 Monroe St.; two stories; brick and frame; cost \$7500; construction by owner.

Fla., Miami.—W. H. McDonald will erect bungalow.

Fla., Tampa.—C. P. Fuller has plans by F. J. James, Tampa, for residence; faced with pressed brick; tile roof; cost \$10,000.

Ga., Atlanta.—W. P. Dunn will erect residence; cost \$2500.

Ga., Atlanta.—R. E. Church will erect two dwellings; cost \$8000.

Ga., Augusta.—City will soon award contract to erect residence for superintendent of stockade; brick or frame; Nisbet Wingfield, City Engineer.

La., New Orleans.—F. Bierhorst will erect double residence; two stories; cost \$2500.

Md., Baltimore.—H. E. Gilbert has plans by John R. Forsythe, 232 St. Paul St., Baltimore, for six dwellings; 28x28 feet; cost \$4900.

Md., Baltimore.—Mrs. Hannah Pollack has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, for residence at Hill Top Park; two and a half stories; frame; cost \$3850.

Md., Baltimore.—Louis F. Bronner, 103 Oakley Ave., has plans by F. E. Beall, 213 St. Paul St., Baltimore, for 16 dwellings on Reisterstown road; two stories; brick; 17x34 feet; cost \$25,000.

Md., Baltimore.—John F. Carter, Ashburton Ave., has plans by Jacob F. Gerwig, 210 E. Lexington St., Baltimore, for 20 dwellings on Ellamont Ave. and 10 on Chesapeake Ave.; semi-detached; iron spot brick; marble trimmings; front porch and rear sun parlor; cost \$2500 each.

Md., Anne Arundel County.—Fred. Sarcher, 291 S. Pulaski St., Baltimore Md., purchased about four acres of land in Anne Arundel county, on Stony Creek, and will erect several bungalows.

Md., Smithsburg.—Methodist Episcopal Church will erect parsonage. Address The Pastor of Methodist Episcopal Church.

Mo., Kansas City.—William Peyton Howard will erect residence.

Mo., Kansas City.—H. R. Williams, president of H. R. Williams Mill Supply Co., will erect \$10,000 residence.

Mo., Kansas City.—C. L. Meister will erect residence; cost \$4000.

Mo., Kansas City.—A. J. King Realty Co. will erect two-brick veneer and two frame dwellings on Woodlawn Pl.; cost \$3000 each.

Mo., St. Louis.—Bush Burns Realty Co. will erect five one-story dwellings at 441-69 Lexington St. to cost \$10,000, and one one-story dwelling at 4740 Cote Brillante to cost \$2900.

N. C., Charlotte.—C. E. Mason has plans by Fred L. Bonfoey, Charlotte, for three bungalows; stained shingles and pressed brick; interior finished with blue brick mantels, hardwood floors and steam heat.

N. C., Southern Pines.—N. F. Wilson will erect residence; cement construction.

N. C., Wilmington.—Dr. F. H. Russell has plans by Grossmann-Mahler Architectural & Construction Co., Wilmington, for dwelling; 34x34 feet; two bathrooms; tile and hardwood floors; slate roof; hot-water heat; electric lighting; bids opened June 1.

N. C., Wilmington.—K. C. Sidbury will erect \$3000 residence.

S. C., Columbia.—J. Caldwell Robertson is having plans prepared by Frank C. Walter, Atlanta, Ga., for dwelling; two stories; brick; tile roof; hardwood floors; hot-water heat; cost \$25,000.

S. C., Columbia.—E. C. Cathcart is having plans prepared by Frank C. Walter, Forsythe Bldg., Atlanta, Ga., for dwelling; two stories; brick veneer; cost \$8000.

S. C., Johnston.—H. W. Crouch is having plans prepared by Arthur W. Hamby, Columbia, S. C., for dwelling; two stories; brick

veneer; limestone trimmings; metal tile roof; hardwood floors; cost \$8000.

S. C., Ridge Springs.—Dr. D. B. Frontis is having plans prepared by Arthur W. Hamby, Columbia, S. C., for dwelling; cost \$4000.

Tenn., Chattanooga.—D. F. Braidon, Chamberlain Bldg., Chattanooga, has contract to erect six dwellings on Kerr St., near Rossville Ave.; six rooms each; brick; hard pine interior finish; gas and electric lighting; cost \$12,000.

Tenn., Lookout Mountain.—I. E. Ireland has purchased four lots and will erect dwellings; at present will build only one residence; six rooms; frame; shingle roof; cabinet mantels; cost \$2250 each.

Tenn., Memphis.—Linden Avenue Christian Church will erect parsonage to cost \$10,000; plans not determined; W. H. Shaffer, pastor. (See "Churches.")

Tex., Austin.—J. B. Pope, president of Southwest Improvement Co., will erect residence; two stories; brick veneer; cost \$15,000.

Tex., Dallas.—Epps G. Knight will erect residence; two stories; cost \$5000.

Tex., Gonzales.—Mrs. T. M. Harwood has plans by J. Henry Yentzen, Yoakum, Tex., to remodel dwelling; two stories; day labor.

Tex., Paris.—A. J. Moon will erect residence.

Tex., Pecos.—Mrs. J. A. Long will erect residence.

Tex., Paris.—L. W. Jackson will erect two dwellings.

Tex., Runge.—O. C. Davenport has plans by J. Henry Yentzen, Yoakum, Tex., to erect dwelling; two stories; frame; cost \$5000; bids opened June 1.

Tex., Richmond.—J. Dyer Moore will erect residence; two stories.

Tex., San Antonio.—W. B. Tuttle will probably erect residence. (See "Drainage.")

Tex., Timpson.—J. B. Bussey will erect residence; construction begun.

Tex., Yoakum.—G. Rinn will open bids June 15 to erect dwelling; one story; frame; cost \$3000; plans by J. Henry Yentzen, Yoakum.

Va., Coeburn.—R. M. Vickers, vice-president of Coeburn Home Co., will erect number of dwellings; construction begun.

Va., Glade Springs.—Dr. H. F. Horne has plans by James Lester & W. J. Williams to rebuild three dwellings; 36x40 feet; ordinary construction; cost \$1200 to \$1500 each; bids opened June 1. (Recently reported burned.)

Va., Hampton.—Mrs. R. S. Hudgins will probably erect residence to replace burned structure. (Recently reported burned.)

Va., Lynchburg.—Mrs. Laura V. Price will erect residence; frame construction; tin roof; cost \$3000.

Va., Norfolk.—Mrs. E. A. Goehring will erect residence; two stories; frame; cost \$3200.

Va., Norfolk.—Dr. R. L. Perkins is having plans prepared by Lee & Diehl, Norfolk, for residence.

Va., Norfolk.—S. W. Pannill is having plans prepared by Ferguson, Calrow & Taylor, Norfolk, for residence; cost \$7000.

Va., Norfolk.—R. E. Tapley will erect residence; two stories; frame; cost \$4000; plans not determined.

Va., Richmond.—T. Francis Green will erect four dwellings; detached; brick; two stories; cost \$16,000.

Va., Richmond.—Charles T. Locher, 1015 E. Main St., is having plans prepared by Mr. Ashbury of Imperial Tobacco Co., Richmond, for dwelling; 24½x65 feet; semi-fireproof construction; hot-water heat; gas and electric lighting; granolithic pavement; cost \$7500.

Va., Richmond.—W. C. Flake will erect residence; detached; two stories; frame; cost \$6000.

Va., Richmond.—V. W. Shreengost will erect five detached dwellings; two stories; frame; cost \$5000; buildings will be 18x20 feet; ordinary frame construction; plans and construction by owner.

Va., Roanoke.—F. B. Thomas will erect residence; two stories; brick; cost \$5000.

Va., Roanoke.—Calvary Baptist Church contemplates erection of parsonage. Address The Pastor, Calvary Baptist Church.

W. Va., Wheeling.—Theodore Wagner will erect residence; two stories.

GOVERNMENT AND STATE

Ala., Montgomery—Capitol.—Capitol Building Extension Commission will receive bids until June 8 to erect wing to capitol building; plans by Frank Lockwood, Montgomery. (Recently noted.)

Mo., Sedalia.—State Fair Board plans extensive alterations to grandstand.

Mo., Warrensburg.—Federal Building.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., opened bids to erect Federal building; Hollday & Cronin, Greensboro, N. C., are lowest bidders at \$58,500 for limestone and \$59,990 for sandstone construction.

N. C., Hendersonville.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., will erect postoffice building; cost \$70,000.

N. C., Washington.—Postoffice, etc.—Treasury Department, office of Supervising Architect, James Knox Taylor, Washington, D. C. Sealed proposals will be received until 3 P. M. July 5, and then opened, for construction, complete (including plumbing, gas-piping, heating apparatus, electric conduits and wiring and lighting fixtures), of United States postoffice and courthouse at Washington, N. C., according to plans and specifications, copies of which may be obtained from custodian of site at Washington, or at this office, at discretion of supervising architect.

S. C., Columbia—Asylum.—State Asylum Commission, James W. Babcock, chairman, Columbia, and Elbert Aull, secretary, Newberry, S. C., will hold conference June 9 with H. P. Kelsey, landscape architect, Salem, Mass.; J. L. Ludlow, consulting engineer, Winston-Salem, N. C., and Frank B. Ware, building architect, 1170 Broadway, New York, regarding erection of building for State Insane Asylum for which \$500,000 has been appropriated. (Previously reported.)

HOTELS

Ga., Columbus.—J. Ralston Cargill is promoting organization of company to erect commercial and tourist hotel; six or more stories; site 97x147 feet; 125 rooms; steel and concrete; at Second Ave. and 12th St.; cost \$200,000.

N. C., Shelby.—C. E. Mason and John Pharr, both of Charlotte, N. C., purchased Patterson Springs property; will remodel hotel, etc.; cost \$3000 to \$4000.

Okla., Muskogee.—F. B. Severs plans to erect hotel; 10 stories; cost \$300,000.

Okla., Skiatook.—John L. Rogers is having plans prepared by Matthews & Cross, Tulsa, for hotel; two stories; brick and stone; natural-gas heat; combination gas and electric fixtures; cost, including site, \$15,000.

Tex., Austin.—William Nagel of San Antonio, Tex., is reported interested in erection of hotel.

Tex., Corpus Christi.—Corpus Beach Hotel Co., John T. Dickinson, president, is having plans prepared by Atlee B. Ayres, San Antonio, Tex., for hotel to cost \$100,000, and will award contract to Brooks-Gordon Construction Co., San Antonio, Tex., for erection.

Tex., Corpus Christi.—Nueces Hotel Co. has requested F. Giles Company, San Antonio, Tex., and C. D. Hill & Co., Houston, Tex., to prepare competitive plans for hotel to cost \$350,000. (Recently noted incorporated with \$187,000 capital stock by H. G. Sherman and others.)

Tex., Houston.—Tuffy, Scoggins & Tuffy have plans by C. D. Hill & Co., Dallas, for hotel and store building; three stories; lower floor for six storerooms; upper floors for hotel; plate-glass show windows.

Tex., Texas City.—Texas City Investment Co. has plans by J. H. H. Thiessen, Texas City, for fireproof hotel; 125x110 feet; cost \$50,000; built by company's force. (William Moore and J. H. Sieber recently noted to erect hotel.)

MISCELLANEOUS

Fla., Daytona.—Restaurant.—E. J. Mills will erect restaurant building; two stories; brick; 35x50 feet.

Ga., Holland—Barns.—J. P. Holland will, in August, erect two barns to replace burned structures. (Mr. Holland's residence recently noted burned.)

Ky., Louisville.—Auditorium, etc.—Chamber of Commerce, H. J. Gutman, chairman of special sub-committee, plans to erect auditorium and home for that body; plans for front elevation by Joseph & Joseph, Louisville.

Ky., Louisville.—Stables.—Falls City Brewing Co.'s stables (reported burned) are being repaired by company's force.

Ky., Middlesboro.—Sanitarium.—Dr. W. K. Evans has plans by S. Evans, Middlesboro, for sanitarium; 25x75 feet; brick; metal roof; hot-water heat; electric lighting; electric sign in front of building; electric passenger elevator; cost \$5000; day labor. (Recently noted.)

Ko., Kansas City—Bathhouse.—Epperson Megaphone Minstrels will erect public bathhouse; cost \$15,000; Louis W. Shouse, chairman of public recreation commission.

Mo., Montgomery City—Postoffice, etc.—J. E. Chadwick will erect postoffice and business building, and plans to erect opera-house in connection with postoffice.

N. C., Elkin—Hall.—W. M. Maberry will erect store, office building and hall. (See "Stores.")

Okla., Baco—Orphanage.—Murray Indian Orphans' Home, J. Harvey Randle, superintendent, will erect dormitory and dining hall.

S. C., Abbeville—Fair Buildings.—Abbeville County Fair Association will erect stable for racing stock and quarters for exhibition cattle and horses.

S. C., Columbia—Hospital.—Dr. A. B. Knowlton is having plans prepared by J. H. Sams, Columbia, for hospital building; Corinthian style; 30 rooms for patients, each equipped with private baths; roof garden divided into three sections, one enclosed in glass for sun parlor and heated by steam in winter, another covered with canvas and the third entirely open; electric elevator; cost \$25,000 to \$40,000.

S. C., Yorkville—Orphanage.—W. B. Moore, chairman building committee, will open bids about June 23 to erect proposed Capers' Memorial Cottage for Church Home Orphanage; 48x80 feet; two stories; brick veneer; steam heat; electric lighting; cost \$10,000; plans by Sayre & Baldwin, Anderson, S. C.

Tenn., Columbia—Hospital.—Maury County King's Daughters Hospital Board, Mrs. Frank F. Everett, president, plans erection of hospital.

Tenn., Knoxville—Veterinary Hospital.—David W. Hughes will erect veterinary hospital; 25x58 feet; three stories; brick.

Tenn., Memphis—Stock Buildings.—Memphis Union Stockyards Co. purchased 3½ acres of land in South Memphis, and will expend \$60,000 to erect buildings.

Tex., Mexia—Clubhouse.—Mexia Fishing and Hunting Club will erect clubhouse.

Tex., Sherman—Livery Stable.—W. L. Gill, architect, Sherman, is preparing plans for livery stable; 100x100 feet; mill construction; electric lighting; electric elevator; cost \$12,000; owner's name not given. (Recently noted to receive bids until May 20.)

Va., Richmond—Hospital.—Dr. J. Shelton Horsley will expend \$25,000 to erect hospital; ordinary construction; steam heat; electric lighting; plans by Charles M. Robinson, Mutual Bldg., Richmond; bids opened May 23. Architect may be addressed. (Recently noted.)

W. Va., Wheeling—Sanitarium.—Anti-Tuberculosis Society will erect tuberculosis sanitarium at Viewpoint; will erect three cottages at once, each to accommodate 3 to 16 patients.

RAILWAY STATIONS

Fla., Pensacola—Pensacola, Mobile & New Orleans Railroad, under construction by Henry McLaughlin, Pensacola, will erect passenger and freight station.

Ga., Macon—Macon, Dublin & Savannah Railroad Co., J. T. Wright, vice-president and general manager, Macon, has not completed plans for freight depot; 75x210 feet; fireproof construction; heating not determined; electric lighting; cost \$30,000. (Recently noted to erect depot, office building, warehouses, etc., to cost \$225,000 to \$250,000.)

La., Baton Rouge—Yazoo & Mississippi Valley Railroad, A. S. Baldwin, chief engineer, Chicago, Ill., will erect sheds over tracks at union station.

La., New Orleans—Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., will, it is reported, erect freight station.

Md., Thurmont—Western Maryland Railway Co., H. R. Pratt, chief engineer, Baltimore, Md., will probably erect passenger station.

Mo., Fulton—Chicago & Alton Railroad, W. D. Taylor, chief engineer, Chicago, Ill., will erect passenger station to replace burned structure; brick and cement; tile roof; plans by M. F. Bell, Fulton.

Mo., Kansas City—Kansas City Terminal Railway Co., John V. Hanna, chief engineer, Kansas City, plans to award initial contract to erect station building and accompanying structures; these buildings and entire terminal project are estimated to involve ultimate expenditure of \$35,000,000; excavating for station building completed and plans and specifications are being examined by contractors with view of submitting bids for work to cost about \$5,500,000; Jarvis Hunt of

Chicago, Ill., is architect. (Previously mentioned.)

Okla., Chickasha—Oklahoma Central Railroad, Dorset Carter, president, Purcell, Okla., will soon begin erection of proposed \$50,000 depot; plans by H. E. Carter, Chickasha.

Okla., Oklahoma City—Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., will probably erect freight depot.

S. C., Estill—Seaboard Air Line Railroad, W. L. Seddon, chief engineer, Portsmouth, Va., is reported to improve depot.

Va., Fredericksburg—Baltimore & Ohio Railroad, F. L. Stuart, chief engineer, Baltimore, Md., will expend about \$50,000 for terminal improvements; plan provides for freighthouse 200x40 feet, covered with corrugated iron and equipped with rolling steel doors; will construct two paved driveways 600x40 and 300x45 feet; terminal to have capacity for 140 cars; will install drainage system, rearrange trackage in yard and install new tracks.

W. Va., Martinsburg—Baltimore & Ohio Railroad, F. L. Stuart, chief engineer, will not, at present, erect passenger station. (Recently noted.)

W. Va., Point Pleasant—Baltimore & Ohio Railroad, W. L. Stuart, chief engineer, Baltimore, Md., and Kanawha & Michigan Railroad, R. P. Black, engineer maintenance of way, Charleston, W. Va., will erect union station; two stories.

SCHOOLS

Ala., Aliceville.—City will vote June 22 on \$9000 bond issue to erect school. Address The Mayor.

Ala., Leeds.—City will expend \$10,000 to erect school building; 54x58½ feet; two stories; brick and wood construction; plans by H. D. Breeding, Birmingham, Ala.; bids opened May 26; H. T. Caffey, Mayor. (Recently noted.)

Ark., Carlisle.—City voted bond issue to erect school; J. L. Mosley and J. A. L. Reiff, directors.

Ark., Fort Smith.—St. Boniface Parish has plans by E. A. Strong for school building to cost \$12,000; brick; eight rooms and basement; Carthage marble trimmings. Address The Pastor, St. Boniface Church.

Ark., Sheridan.—Sheridan Special School District plans to erect school to cost \$12,000 to \$15,000; C. D. Harris, G. W. Baker, Ed Du Vall and others, directors.

D. C., Washington—Gonzaga College, Rev. Eugene DeL. McDonnell, president, 191 St. N. W., will erect additional building with frontage of 200 feet; to contain gymnasium, laboratories and offices; three stories.

Fla., Sutherland.—Southern College, Rev. J. P. Hilburn, president, plans improvements to buildings and erection of gymnasium building.

Ga., Atlanta.—School Board selected site for proposed English-Commercial Girls' High School, Walter Rich, chairman of committee; will soon award contracts to erect Crew St. and Fair St. schools.

Ga., Athens.—Lucy Cobb Institute Alumnae Association, Baseline Prince, treasurer, has not definitely prepared plans to erect John Gerding Memorial Infirmary on college campus. (Recently noted.)

Ga., Fort Valley.—City will erect school on Beauty Square; three stories; brick; 13 class-rooms, music-rooms and chapel. Address The Mayor.

Ga., Macon.—Andrew Female College will erect two buildings; brick construction; cost \$50,000.

La., Tallulah.—C. M. Hughes, superintendent, will receive bids until noon June 15 to erect brick school for Parish School Board; certified check for \$1000; plans and specifications at office of Stevens & Nelson, architects, Hennen Bldg., New Orleans, La. (Recently noted.)

Ky., Barlow.—Barlow Public School Board will expend \$6000 to erect school building; 45x62 feet; two stories; ordinary construction; common brick; slate roof; plans by A. L. Lassiter, assisted by C. W. Lassiter, Paducah, Ky.; date of opening bids not set. (Recently noted.)

Ky., Lexington.—Board of Education or Garber & Woodward, architects, 906 Andrews Bldg., Cincinnati, O., will receive bids until noon June 15 (change of date); price of labor and materials stated separately, and bidders may submit proposals for any or all of following items of construction: Excavation, masonry and concrete work, brick work and terra-cotta, carpenter work and lumber, sheet-metal work and roofing, plastering, painting and glazing, plumbing and gasfit-

ting, iron and steel work, heating and ventilation, electrical work, marble and slate work, hardware and fire-escape; bids also received comprising all foregoing items and branches in single proposals; bids to contain name of every person interested therein and accompanied by guarantee of some disinterested person to 10 per cent. amount of bid; bids to be marked "Bids for Brick Work," or as case may be; John H. Smrall, clerk of board. (Recently noted.)

Ky., Winchester.—Board of Education will erect school in Trapp district.

La., Baton Rouge.—City will erect school in Second ward. Address The Mayor.

La., Harvieland, R. F. D. from Frankfort.—Franklin County Commissioners, Frankfort, will erect proposed county high-school building.

La., New Orleans.—City will erect \$100,000 24-room school to replace present McDonough School No. 14 on Peters Ave.; W. J. Hardee, City Engineer.

Md., Baltimore.—City will erect school at Scott, Hamburg, St. Peter and Wyeth Sts. to replace present structure. Address The School Board.

Miss., Bolzoni.—W. L. Toney, Mayor, and Board of Aldermen will receive bids until 8 P. M. June 6 for erection of brick school; certified check for 5 per cent. amount of bid; plans and specifications at office of J. P. Krouse, architect, Meridian, Miss., and Jeff Clark, Clerk, Bolzoni. (Recently noted.)

Miss., Courtland.—J. E. Johnson, president Board of Trustees, Batesville, Miss., will receive bids until June 3 to erect Panola Agricultural High School; two stories; brick; slate roof; plans on file at office of R. H. Hunt, architect, Chattanooga, Tenn., or J. E. Johnson, Batesville, Miss. (Recently noted.)

Miss., Meridian.—Mayor and Boards of Councilmen and Aldermen will receive bids through C. W. O'Leary, City Clerk, until 8 P. M. June 6 to erect two brick school buildings and install heating and sanitary plumbing system in same; cost about \$65,000; also for certain additions and repairs, with heating and plumbing, for South Side school, to cost \$6500; East End school to cost \$7500 and West End school to cost \$6000; certified check for 5 per cent. amount of bid; plans and specifications at office of P. J. Krouse, architect, Meridian.

Mo., Kansas City.—City will erect \$5000 school at Raytown. Address The Mayor.

Mo., St. Louis.—Board of Education purchased site at Mitchell, Prather, Glades and Forest Aves. to erect school.

N. C., Charlotte.—City will vote July 4 on \$100,000 bond issue for school improvements; Joseph Firth, City Engineer.

N. C., Warsaw.—City is having plans prepared by R. H. Stephens, Wilmington, N. C., for school building; 10 rooms; auditorium to seat 400 people.

Okla., Bokchito.—City will vote on \$13,500 bond issue to erect school. Address The Mayor.

Okla., Guthrie.—Methodist Episcopal congregations will erect proposed school; Rev. J. T. Riley, chairman, Oklahoma City, Okla.

Okla., Martha.—Bids received by School Board until 10 A. M. June 1 to erect high-school building; cost \$12,000; plans at office of J. C. Chism, architect, Altus, Okla.

Okla., Shawnee.—Shawnee Development Co. will issue \$30,000 of bonds to be applied toward erection of proposed Baptist University and \$30,000 of bonds to complete bonus for Catholic University.

S. C., Greenville.—City voted \$40,000 bond issue to erect school. Address The Mayor. (Previously noted.)

S. C., Honea Path.—City will vote June 5 on \$7000 bond issue to enlarge school, etc. Address The Mayor.

S. C., Spartanburg.—Wofford College will erect dormitory; three stories; 75 to 80 rooms; cost \$40,000 to \$50,000.

Tenn., Benton.—Board of Education, Ducktown, Tenn., will receive bids until June 15 to erect two high school buildings in Polk county; plans and specifications at office of R. Graf & Son, Knoxville, Tenn.; W. A. Prince, Benton, and J. M. Kilpatrick, Ducktown, Tenn. (Recently noted.)

Tenn., Bristol.—City will expend \$35,000 to erect high-school building on Tennessee side of city and \$15,000 to enlarge present buildings; also erect \$50,000 high-school building on Virginia side. Address The Mayor.

Tenn., Ducktown.—Board of Education, Ducktown, will receive bids until June 15 to erect two high schools in Polk county; plans and specifications at office of R. F. Graf & Son, architect, Knoxville, Tenn.; W. A.

Prince, Benton, and J. M. Kilpatrick, Ducktown. (Recently noted.)

Tenn., Trezevant.—Carroll County Board of Education plans to purchase Trezevant public school building; will remodel and enlarge same.

Tenn., Memphis—Shelby county voted \$200,000 bond issue to erect schools. Address County Commissioners. (Recently noted.)

Tenn., Chattanooga—Bonny Oaks School Trustees are having plans prepared by Chas. E. Bearden, Chattanooga, for school building; brick; stone trimmings; will also remodel old buildings and erect water tank for water supply.

Tenn., East Lake.—Hamilton County Commissioners, Chattanooga, Tenn., will probably erect school; two stories; cost \$30,000.

Tenn., Highland Park, Station Chattanooga. R. H. Hunt, architect, James Bldg., Chattanooga, has plans for St. Sebastian parish school and chapel; brick; slate roof; steam heat; gas and electric lighting.

Tenn., Tullahoma.—Fitzgerald-Clarke School will erect gymnasium; main floor and basement; steam heat; electric lights; basketball floor, swimming pool, bowling alley, etc.

Tex., Anderson.—City will erect school to cost \$5000. Address The Mayor.

Tex., Belton.—Bell county will erect concrete school building; cost \$2500; plans not made; also contemplates erection of several other wood structures later; address J. Lewallen, Temple, Tex. (Recently noted to vote in June on bond issue for school improvements.)

Tex., Cabeza.—Cabeza Common School District plans to erect school. Address District School Trustees.

Tex., Cuero.—City voted \$10,000 bond issue to erect school. Address The Mayor. (Recently noted.)

Tex., Donna.—School Trustees will erect school building; two stories; 130x75 feet; ordinary construction; brick; acetylene gas lighting; concrete sidewalks; cost \$12,000; plans by G. R. Meriwether, secretary of board. (Recently noted to open bids May 19.)

Tex., Childress.—Childress Independent School District will vote June 6 on bond issue to erect \$30,000 high-school building. Address District School Trustees.

Tex., Cuero.—City voted \$10,000 bond issue to erect school. Address The Mayor. (Previously noted.)

Tex., Childress.—City will vote in June on \$30,000 bond issue to erect high-school building. Address The Mayor.

Tex., Farmersville.—Farmersville Independent school district, R. S. Hike, secretary, will soon award contract to erect school; two stories and basement; reinforced concrete and brick; plans by Sparger & Peters, Bonham, Tex.

Tex., Garrison.—Garrison Independent school district, C. B. Langston, treasurer of trustees, will receive bids until June 2 to erect two-story eight-room school; brick construction; hot-air heat; cost \$7500; plans by Risser & Murray, Tucumcari, N. M.; plans and specifications at office of First State Bank of Garrison.

Tex., Houston.—City voted \$500,000 bond issue for school improvements. Address The Mayor. (Previously noted.)

Tex., Fort Arthur.—City plans to erect \$18,000 school building. Address The Mayor.

Tex., Taylor.—City will vote June 30 on \$16,000 bond issue to erect school; C. M. Still, Mayor.

Tex., Teague.—City will issue \$10,000 of bonds to erect school. Address The Mayor.

Tex., Waco.—City will vote June 24 on \$70,000 bond issue for school improvements as follows: Addition to Waco colored school to cost \$1500; improvements at Clay and River colored schools to cost \$1000; erection of additional school in East Waco to cost \$32,000; rebuilding Bell's Hill school to cost \$12,000; equipment and furniture at new high school to cost \$11,000; additional \$7000 to erect high school; new grounds for North Waco school, \$3000, and contingencies in above estimates, \$2500; H. B. Mistrout, Mayor.

Tex., Winona.—City plans bond issue to erect school. Address The Mayor.

Va., Bristol.—City will erect wings to Washington Street and Oak Street schools to cost \$15,000; will also erect \$50,000 high-school building later. Address The Mayor.

Va., Bristol.—City will erect \$50,000 high-school building. Address The Mayor. (See Tenn., Bristol.)

Va., Charlottesville.—University of Virginia will make improvements to college, including addition of porticos and facades to Dawson's Row houses (spaces between dormitories to be filled by arcades with

rooms); construction of asphalt walks, etc.

Va., Marion.—John A. Groseclose, secretary, will receive bids until noon June 10 for erection of college building; separate bids for foundation and superstructure; certified check for \$500; plans and specifications at office of Marion National Bank, Marion, and C. B. Kearfoot, architect, Bristol, Tenn., or may be had on deposit of \$25. (Previously noted.)

Va., Portsmouth.—School Board Committee will extend date for opening bids to erect Park View school; plans by C. M. Robinson, Richmond, Va. (Recently noted.)

Va., Richmond.—City plans to erect proposed Swansboro school; cost \$10,000. Address The Mayor.

Va., Round Hill.—School boards of Jefferson and Mt. Gilead districts will erect high school; cost \$8000.

W. Va., Clay.—Clay county voted \$25,000 bond issue to erect high-school building. Address County Commissioners.

W. Va., Danville.—Scott School District trustees in Boone county will erect six-room school.

STORES

Fla., Dunnellon.—Baskin & Kibler will erect business building; two stories; 53x90 feet.

Fla., Jacksonville.—Frank Adams, president of Barnett National Bank, and Julius Hirschberg will probably erect business building.

Fla., St. Petersburg.—F. R. Singlehurst, proprietor of Gulf Novelty Works, will erect store and apartment building; two stories; cement-block construction; 40x40 feet.

Ga., Atlanta.—King Realty Co. will erect store buildings; cost \$45,000.

Ga., Savannah.—Le Roy Myers & Co. will erect business building; three stories.

Ky., Harlan.—Smith & Cawood are having plans prepared by Grossmann-Mahler Architectural & Construction Co., Wilmington, N. C., for store building; two stories; 45x30 feet; pressed brick; stone trimmings; plate-glass; electric lighting.

Ky., Louisville.—Bornstein Realty Co. has leased site at 5th and Walnut Sts. and contemplates erection of 10-story business building.

La., New Orleans.—Leon Fellman will erect store building; six stories.

Md., Baltimore.—Bernheimer Bros., 311-17 W. Lexington St., contemplate erection of department-store building in connection with present store, and are having plans prepared by Charles E. Cassell & Son, Law Bldg., Baltimore.

Md., Cumberland.—Cumberland Office Supply Co. will erect business building; three stories; brick.

Miss., Seminary.—E. E. Collins will erect drug store and office building; pressed brick; two stories; lower floor for store; upper floor for offices.

Mo., Joplin.—C. A. Dieter has plans by A. C. Michaelis, Joplin, for store and office building; five stories on ground floor; offices above; two stories; 80x120 feet; ordinary construction; heating and lighting not decided; cost \$30,000; construction by owner.

Mo., Kansas City.—Kaw-Mo Grocery Co. will erect business building.

Mo., Kansas City.—Joseph McCoy will erect business building.

Mo., Kansas City.—Olive Investment Co., 214 Hall Bldg., will expend \$8000 to erect store and apartment building; 46x60 feet; ordinary construction; gas stoves, gas and electric lighting; cement sidewalks; day labor. (Recently noted.)

Mo., Montgomery City.—J. E. Chadwick will erect business and postoffice building. (See "Miscellaneous Structures.")

N. C., Elkin.—W. M. Maberry will erect business building; three stories; brick; 50x100 feet; lower floor for stores; second floor for offices and third floor for hall.

N. C., Winston-Salem.—Hitchcock-Trotter Company will double capital stock and reconstruct store building; will convert main floor into one large auditorium, remove present walls, install steel ceilings with light wells, etc.; also remodel second floor and possibly construct roof garden; will install electric elevator service, cash package system, dust-proof cases, parcel checking post, etc.

N. C., Wadesboro.—B. G. Covington contemplates erection of store building.

N. C., Winston-Salem.—Huntley-Hill-Stockton Company will erect two-story addition to store, stable and garage; mill construction; gas and electric lighting; cost \$40,000; contract for stable and garage awarded to

Ange Construction Co., Winston-Salem; will soon award contract for store addition.

Okla., Muskogee.—W. N. Patterson will erect business building; 10 stories; 83x140 feet; cost \$400,000.

Okla., Oklahoma City.—W. F. Harn will erect business building; reinforced concrete; four stories; foundation to carry 12 to 14 stories.

S. C., Brunson.—Moore, Brunson & Co. will receive bids until 2 P. M. June 2 to erect two-story brick store building; 70x145 feet; plans and specifications from Shand & Lafaye, architects, Columbia, S. C.

S. C., Columbia.—McCrary-Pressly Company is having plans prepared by Arthur W. Hamby, Columbia, for two store buildings; 52x70 feet; two stories; glass front; steel girder and ceiling; gravel roof; iron balcony; cost \$10,000.

S. C., Columbia.—H. T. Boucher is having plans prepared by Arthur W. Hamby, Columbia, S. C., for two store buildings; three stories each; 52x125 feet; pressed-brick front; limestone trimmings; gravel roof; steel girders and ceiling; plate-glass fronts; balconies; fire escapes; cost \$17,000.

Tenn., Coal Creek.—Ancient Free and Accepted Masons, Coal Creek Lodge, No. 492, contemplate erection of store and lodge building. (See "Association and Fraternal Buildings.")

Tenn., Chattanooga.—Voigt Bros. are having plans prepared by J. G. Barnwell and Clarence T. Jones, Chattanooga, for store building; 4x140 feet; three stories and basement; sprinkler system; stone trimmings; steam heat; electric lighting; electric elevator.

Tex., Beaumont.—B. Deutser will erect business building; two stories; brick.

Tenn., Chattanooga.—H. C. Hulse of Ferger Bros., and W. W. Hooper, dean of University of Chattanooga, are reported to erect business building.

Tex., Houston.—Tuffy, Scoggins & Tuffy have plans by C. D. Hill & Co., Dallas, Tex., for hotel and store building. (See "Hotels.")

Tex., Houston.—J. S. A. Frank has plans by E. Lane, Houston, for store and apartment building. (See "Apartment-Houses.")

Tenn., Knoxville.—Jim Anderson Company will erect business building; three stories; pressed brick front; elevators; steam heat; cost \$20,000.

Tenn., Nashville.—United Cigar Stores Co. has plans by Marr & Holman, Nashville, to remodel store at Union St. and Fourth Ave.; Honduran mahogany and green marble base and tile floors.

Tenn., Nashville.—Percy Warner will erect business building; five stories; will be leased by B. H. Stief Jewelry Co.; plans by Asmus & Norton, Nashville.

Tenn., Nashville.—T. W. Crutcher will erect business building; two stories; brick; cost \$5000.

Tex., Dallas.—Texas Machinery & Supply Co. will erect business building; three stories and basement; heavy mill construction; fireproof; 50x200 feet.

Tex., Greenville.—F. J. Phillips and C. B. Jones will erect business building; two stories; brick; plate-glass front; steel ceiling; concrete floor.

Tex., Houston.—Finnegen estate will erect business building; 50x90 feet; one story; reinforced concrete foundation to support 10 stories.

Tex., Lockhart.—H. W. Felder will erect business building; two stories; brick.

Tex., Shiner.—Shiner Hardware Co. will expend \$6000 to erect business building; 50x90 feet; ordinary construction; plans by J. Henry Yentzen, Yoakum; day labor; construction begun.

Tex., Taylor.—R. H. Eames, Waco, Tex., has plans by H. C. Struve, Taylor, for business building; 50x115 feet; stoves; electric lighting; cement sidewalks; cost \$7000 to \$8000; bids opened May 25. (Recently noted.)

Tex., Temple.—C. E. Winn has plans for business building; brick; one story; foundation to carry four additional stories; site 90x110 feet.

Tex., Waco.—Turner-Coffield Company organized with \$50,000 capital stock; Alfred Abeel, president; J. E. Turner, vice-president; J. H. Coffield, secretary; Wm. C. Abeel, treasurer; will erect business building for produce establishment.

Tex., Waco.—Bids received until June 3 by Geo. C. Burnett, architect, Waco, to erect store and office building for Wm. Cameron & Co., Inc. (See "Bank and Office.")

Tex., West.—Charles Jares will erect business building; brick; 75x90 feet; will divide into three rooms with plate-glass fronts, metal ceilings and concrete floors.

Tex., Yoakum.—Green & Welhausen will open bids June 12 to erect store, bank and office building recently noted. (See "Bank and Office Buildings.")

Va., Norfolk.—Meredith S. Spratley will erect store building for Schreier & Son; plans by Lee & Diehl, Norfolk; stone and brick; steel skeleton; three stories; fireproof; plate-glass windows; cost \$100,000.

Va., Portsmouth.—H. L. Alexander will erect furniture store; five stories; 36x100 feet; fireproof construction; heating not decided; install elevator to cost \$1800; cost of building \$25,000; plans by owner; day labor.

Va., Portsmouth.—R. S. Brooks and Harry L. Maynard purchased building at High and Green Sts. and will convert into business building.

Va., Radford.—E. M. Rupe will erect store at Wadsworth and Second Sts.; also store building opposite Racket Store; two stories; brick; 40x50 feet.

Va., Richmond.—W. E. Pickles will erect detached store; two stories; brick; cost \$3000.

THEATERS

Ky., Louisville.—Hippodrome Co. will open bids July 1 to erect moving-picture theater; 30x125 feet; ordinary construction; steam heat; cost \$6500; plans by D. X. Murphy, 5th and Market Sts., Louisville. (Company recently noted incorporated with \$15,000 capital stock.)

Mo., Montgomery City.—J. E. Chadwick plans to erect opera-house. (See "Miscellaneous Structures.")

Mo., St. Louis.—Olive Theater Co. incorporated with \$60,000 capital stock by E. Harry Pipe, T. J. Scott, W. J. Rae and others; will erect theater on Olive St.; frontage 75 feet; cost \$50,000.

S. C., Camden.—City is having plans prepared to remodel city hall and opera-house. (See "City and County.")

Va., Norfolk.—M. L. Hofheimer, president of Criterion Theater Co., is having plans prepared by B. F. Mitchell of Norfolk for proposed theater; cost \$60,000 to \$75,000.

Va., Norfolk.—Athenian Amusement Co. will open bids June 5 to erect Athenian Theater; 112½x46 feet; stage 29x20 feet; seating capacity 1200; plans by B. F. Mitchell, Norfolk.

WAREHOUSES

Ala., Anniston.—American Net & Twine Co. will build 60x300-foot warehouse; brick

construction; main offices at East Cambridge, Mass.

Ky., Winchester.—Clark County Equity Warehouse Co. will erect warehouse; 272x108 feet; cost \$15,000 to \$20,000; S. D. Goff and others, committee.

La., Clio.—Maurepas & Northern Railway, J. B. McKenzie, chief engineer, Adrian, Minn., is reported to erect terminal warehouse.

Mo., St. Louis.—Bert H. Lang will erect warehouse and grain elevator; 290x120 feet; equipped for conveying grain from elevator to sacks and loaded on cars.

N. C., Salisbury.—Farmers' Union plans to erect cotton warehouse.

S. C., Barnwell.—Farmers' Union Warehouse Co. will erect bonded warehouse.

S. C., Greenville.—Piedmont Bonded Warehouse & Compress Co. (recently noted incorporated with \$100,000 capital stock) has plans by J. E. Sirrine, Greenville, for warehouse and compress; warehouse will be 100x100 feet; three stories; reinforced concrete construction; steam plant for fire protection; cost \$75,000. (See "Cotton Compresses and Gins.")

S. C., Greenville.—Piedmont Bonded Warehouse Co. incorporated with \$100,000 capital stock by W. S. Griffin and C. S. Webb.

Tenn., Chattanooga.—City will erect warehouse on city wharf. Address Mayor Thompson.

Tex., Houston.—Hockemeyer-Fisher Company will open bids June 19 to erect warehouse; two stories and basement; 100x50 feet; fireproof construction; cost \$10,000.

Tex., Waxahachie.—A. Lasswell will erect warehouse; brick; 50x100 feet; 18-foot walls; construction begun.

Va., Louisa.—T. Q. Thompson, Louisa, may be addressed relative to erection of warehouse. (T. E. Chambers, Blackstone, Va., and others recently noted interested.)

Va., Petersburg.—British-American Tobacco Co., general offices, 86 Strand, London, England, and 111 Fifth Ave., New York, will probably erect nine or ten storage warehouses with capacity of 1000 hogsheads each.

Va., Richmond.—John A. Hutcheson has plans by C. H. Fisher, Richmond, for warehouse on 6th St. near Cary; brick; two stories; basement equipped with 150 stalls to accommodate teams; George N. Skelton, Norfolk, is reported as lowest bidder; cost about \$30,000.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—Miller & Kopp, 627 F St. N. W., awarded contract to Melton Construction Co. to erect apartment-house at 52 Quincy St.; four stories, brick and steel; steam heat (vacuum system); electric lighting; cost \$130,000; plans by N. R. Grimm, 627 F St. N. W., Washington.

Ga., Savannah.—John R. Walsh awarded contract to J. G. Cook, Savannah, to erect four apartments; frame; concrete trimmings; covered with galvanized shingles; cost about \$10,000.

Mo., Kansas City.—J. A. Ritzler awarded contract to Lonsdale Bros., Kansas City, to erect apartment and store building; cost \$16,000. (See "Stores.")

N. C., Raleigh.—Dr. Hubert Royster will erect three-story apartment-house; 21 rooms; water heating; building will be three stories; 38x76 feet; ordinary construction; brick; cost \$10,000; plans by Frank B. Simpson, Raleigh; contract awarded to D. C. Hill of Raleigh on per centage basis.

Va., Roanoke.—Jefferson Apartment Co. awarded contract to J. F. Barbour & Sons, Roanoke, to erect apartment-house at Jefferson and 9th Sts.; seven stories; fireproof; plans by Huggins & Bates, Roanoke.

W. Va., Williamson.—Juhling Bros. will expend \$5000 to erect business building; first floor to contain store and flat above; contracts recently noted placed. (See "Stores.")

ASSOCIATION AND FRATERNAL

D. C., Washington.—Ancient Free and Accepted Scottish Rite of Free Masonry awarded contract to Norcross Brothers Company (not Solomon Norcross Brothers Company, as recently reported), 406 Colorado Bldg., Washington; granite and Indiana limestone construction; cost about \$1,250,000; plans by John Russell Pope, New York, and Elliott Woods, superintendent of Capitol, Washington. (Recently more fully detailed.)

Okla., Boley.—Colored Ancient Free and

Accepted Masons awarded contract to R. M. Christman, Oklahoma City, Okla., to erect Masonic Temple; cost \$20,000. (Recently noted.)

W. Va., Huntington.—Masonic Temple Association awarded contract at \$119,000 to Buck Construction Co. (George Hback, local representative) to erect Masonic Temple; seven stories; reinforced concrete; first five floors for stores and offices and two upper floors for lodgerooms; fireproof construction; plans by Smith Bros. of Huntington and Wilbur T. Mills of Columbus, O. (Recently noted.)

BANK AND OFFICE

Ala., Stevenson.—Tennessee Valley Bank awarded contract to Joseph W. Frahn, New Decatur, Ala., to erect bank building to replace burned structure. (Previously reported burned.)

D. C., Washington.—American Bank & Trust Co. awarded contract to Charles T. Williamson, Petersburg, to erect bank building; two stories; brick; Corinthian style front; cost \$30,000; plans by Huggins & Bates, Roanoke. (Recently noted.)

D. C., Washington.—Riggs Realty Co. awarded contract to Wells Bros. Company, New York, for razing present structure and erection of office and theater building at 15th and G Sts. N. W.; eight stories and basement; 115x176 feet; fireproof construction; Warren Webster system of heating; electric elevator; cost \$800,000; plans by J. H. de Sibur, Hibbs Bldg., Washington. (Recently noted.)

Fla., Tampa.—Southern Express Co. awarded contract to E. W. Parker, Tampa, to erect building; 120x50 feet; cost \$18,000. (Previously noted.)

N. C., Charlotte.—Commercial National Bank awarded contract to Whitney-Steen Company, New York, to erect bank building, including heating and plumbing; contracts for elevators, vaults, bank fixtures and general equipment will be awarded later; marble and terra-cotta; 12 stories; 35x150 feet;

steam heat; electric lights; three elevators; cost about \$250,000; plans by Mowbray & Linger, 56 Liberty St., New York. (Previously noted.)

N. C., Roxboro.—H. F. Smith, Durham, N. C., has contract to erect office and store building; three stories; steel; cost \$16,000; lower floor for stores and postoffice; upper floors for offices.

N. C., Wadesboro.—James A. & R. L. Hardison's building (recently noted) will be three stories and basement; contract awarded to Stephenson & Miller, Rockingham, N. C. (See "Stores.")

Okla., Muskogee.—Barnes estate awarded contract to Swenson Construction Co., Kansas City, Mo., to erect office building; 10 stories; steel construction; 60x118 feet; stone, terra-cotta and brick; two elevators; vacuum cleaning system; cost \$250,000; plans by Wilder & Wright, Kansas City, Mo. (Previously noted.)

Okla., Skiatook.—First National Bank awarded contract to Brickner-Laws Construction Co. of Tulsa, Okla., to erect bank building; cost \$10,000.

Tex., Pecos.—Kiser & Boso have contract to erect two-story store and office building to replace Lipscomb Bldg.

CHURCHES

Ky., Winchester.—Central Baptist Church awarded contract to J. W. Wheeler, Winchester, to erect edifice.

La., Mansfield.—Baptist congregation awarded contract to Nattle & Swiler, New Orleans, La., to erect edifice; two stories; brick; two entrances; structure 72x104 feet; brick; hot-air heat (fan system); electric lighting; cost \$25,000; plans by Stevens & Nelson Company, New Orleans.

La., New Orleans.—German Evangelical congregation awarded contract to Petty & Erwin, Room 312 Godchaux Bldg., New Orleans, to erect Sunday-school addition; two stories; 100x50 feet; fireproof construction; hot-air heat; electric lighting; cement sidewalks; cost \$15,000; plans by Oscar Mohr, Room 210 Mucheca Bldg., New Orleans. (Recently noted under "Miscellaneous Structures.")

Md., Baltimore.—St. Elizabeth's Catholic Church awarded contract to Monmonier & Sorrell, 1711 McCulloh St., Baltimore, to erect edifice at Baltimore St. and Lakewood Ave.; 73x170 feet; fireproof construction; cost \$80,000 to \$85,000; plans by Robert C. Ulrich, 72 Gunther Bldg., Baltimore. (Recently noted.)

Tex., Waelder.—Baptist congregation awarded contract to erect edifice; red brick; cost \$800. Address The Pastor, Baptist Church.

Va., Greenbush.—Greenbush Methodist Protestant Church awarded contract to Greenbush Manufacturing Co., Greenbush, to erect proposed edifice; 30x50 feet; 16-foot corner posts; frame; gasoline lighting; cost \$2250; plans by O. H. Coard, Greenbush. (See "Machinery Wanted.")

CITY AND COUNTY

Ga., Newnan.—Jail.—Covatta County Commissioners awarded contract at \$11,889 to Georgia Construction Co., Newnan, to erect jail and jailor's residence; at \$9735 to Pauly Jail Building Co., St. Louis, for equipment; plans by G. Lloyd Preacher, Augusta, Ga., call for structure two stories and basement; brick; stone trimmings; tile roof; steam heat; will contain two hospital rooms, two minor cellrooms with three steel cells each; two minor cellrooms containing padded cell for insane prisoners and condemned cell, besides female cell and hospital cell; also office for jailor, felon cellroom, and another cellroom with eight cells; jailor's residence to contain kitchen, butler's pantry, reception hall, bath and four additional rooms. (Recently noted.)

Ky., Middlesboro.—City Hall, etc.—City awarded contract at \$38,385 to George L. Hunt & Son, Middlesboro, to erect city hall; fireproof construction; 142x128 feet; two stories; hot-water heat; electric lights; plans by Baumann Bros., Knoxville, Tenn.

Md., Baltimore.—Home.—City awarded contract at \$10,563 to P. J. Cushman to erect porches and extension to nurses' home. (Recently noted.)

N. C., Nashville.—Office Building.—Nash County Commissioners awarded contract to B. W. Batchelor, Nashville, to erect office building; brick construction. (Previously noted.)

S. C., Beaufort.—City Hall, Market, etc.—City awarded contract to I. T. Elkins to erect city hall, market and engine-house; ordinary construction; cost \$19,000; plans by Wilson & Sampayrac, Columbia, S. C. (Recently noted.)

S. C., Georgetown.—Fire Station.—City awarded contract to F. D. McNulty, Columbia, S. C., to erect fire station; two stories; 56x60 feet; pressed brick front; concrete floors; fire-alarm system; steel girder; gravel roof; cost \$5500; plans by Arthur W. Hamby, Columbia, S. C. (Previously noted.)

Va., Lynchburg.—Hospital.—City awarded contract to C. W. Womack, Lynchburg, to erect hospital; cost \$30,000. (Previously noted.)

Va., Martinsville.—Jail.—Henry County Supervisors awarded contract at \$4332 to C. H. Turner & Co., Evinston, Va., to erect jail, and at \$10,500 to Van Dorn Iron Works, Cleveland, O., for steel cells and other steel work; two stories; brick, cement and concrete; tile roof; seven cells. (Recently noted.)

Va., Martinsville.—Jail.—Henry County Board of Supervisors will expend \$15,000 to erect jail; 80x60 feet; ordinary construction; steam heat; electric lighting; plans by L. J. Burge, Martinsville; general contract recently noted awarded to C. H. Turner & Co., Evinston, Va., and contract to Vandorn Iron Works, Cleveland, O., for steel work. (See "Machinery Wanted.")

COURTHOUSES

Ark., Fordyce.—Dallas county awarded contract at \$44,400 to E. L. Koonce, Fordyce, to erect courthouse. (Recently noted.)

Tex., San Antonio.—Bexar County Commissioners awarded contract to Figh-Bull & Butcher, San Antonio, to remodel and improve courtrooms of 57th and 73d district courts; cost \$12,900.

DWELLINGS

Fla., Tampa.—Karl Eychaner awarded contract to Wallace & Beatty, Tampa, to erect bungalow; stucco; seven rooms; cost \$3500; plans by A. H. Johnson, Tampa.

Fla., Tampa.—J. L. Reed awarded contract to W. R. Page, Tampa, to erect residence; two stories; cost \$3300; plans by A. H. Johnson, Tampa.

Ga., Augusta.—Stockade Committee awarded contract at \$2900 to T. O. Brown & Son, Augusta, to erect residence for superintendent of stockade. (Recently noted.)

La., New Orleans.—Fred Seaman will erect residence; two stories; 60x40 feet; frame; hot-air heat; cost \$5000; contract awarded.

Md., Baltimore.—Harry F. Shew, 347 Equitable Bldg., awarded contract to J. T. Mathis, Equitable Bldg., Baltimore, to erect bungalow at Woodland and Wolcott Aves.; one and a half stories; frame; cost \$4000; plans by W. A. Foreman, Law Bldg., Baltimore.

Md., Baltimore.—Dr. F. Denhard, Light and West Sts., awarded contract to Baltimore Schuh Concrete Corporation, 15 E. Fayette St., Baltimore, to erect proposed dwelling; 38x48 feet; fireproof concrete construction; cost \$15,000; plans by Stanislaus Russell, Clifton Ave. and 7th St., Baltimore.

Md., Roland Park.—Charles C. Heldmann awarded contract to the Roland Park Company, 408 Roland Ave., Roland Park, to erect 2½-story shingle cottage on Deepdene Rd.

Md., Roland Park.—Edwin Stehl awarded contract to the Roland Park Company, 408 Roland Ave., Roland Park, to erect two-story shingle cottage on Deepdene Rd.

Md., Baltimore.—Mrs. Ida E. Levin awarded contract to Wm. M. Fowler, 1525 Maryland Ave., Baltimore, to erect cottage on Warfield Ave., between Fairview and Woodland Aves.; two and a half stories; frame; cost \$4900; plans by Henry J. Tinley, 314 N. Charles St., Baltimore.

Md., Baltimore.—Dr. Charles F. Blake awarded contract to L. O. Hildebrand & Bro., 215-17 Courtland St., Baltimore (subject to changes in plans before signing), for alterations and erection of three-story addition to residence at 20 E. Preston St.; cost about \$6000.

Md., Baltimore.—John T. Donohue, 1808 Thames St., has plans by and awarded contract to M. R. Stone, 228 E. Hoffman St., Baltimore, to erect 16 dwellings on Patuxent St.; two stories; 13x66 feet; brick.

N. C., Winston-Salem.—J. C. Dodson awarded contract to J. E. Kenerly to erect dwelling; two stories; 10 rooms; frame; slate roof; electric lighting; cost \$6500.

N. C., Winston-Salem.—S. H. Adams awarded contract to J. E. Kenerly to erect two-story dwelling; nine rooms; frame; electric lighting; cost \$3250.

N. C., Winston-Salem.—R. G. Foster awarded contract to J. E. Kenerly to erect seven-room frame dwelling.

Tenn., Chattanooga.—W. H. Cummings

awarded contract to Johnson & Stewart, James Bldg., Chattanooga, to erect proposed dwelling on Vine St. near Willow St., in Highland Park; two stories; seven rooms; frame and stucco; hot-air heat; cost \$9000.

Tenn., Chattanooga.—J. Milton Browne awarded contract to John E. Davis, Chattanooga, to erect residence at East End and McCallie Aves.; eight rooms; pressed brick and stone; stone foundation; furnace heat; slate roof; tile trimmings; cost \$7000; also awarded contract for five cottages to cost \$9000 on Bailey Ave., Beach St. and Orchard Knob.

Tenn., Chattanooga.—Feiger Bros. awarded contract to L. A. Flinn, Ridgedale, Tenn., to erect dwelling; eight rooms; brick; stone trimmings; hardwood finish; gas and electric lighting. (Recently noted.)

Tenn., Chattanooga.—Charles Springfield, 1115 Bailey Ave., awarded contract to erect dwelling on Duncan Ave.; two stories; frame; chingle roof; cabinet mantels; hard-pine interior finish; heating not decided; cost \$2500. (Recently noted.)

Tenn., Knoxville.—O. P. Sterling awarded contract to W. C. Terry & Co., Knoxville, to erect four dwellings; cost \$10,000; plans by L. C. Waters, Knoxville.

Tex., Harrisburg.—Mrs. J. E. Davis has plans by and awarded contract to R. L. Walde, South Houston, Tex., to erect two dwellings; six rooms and bath; ordinary construction; cost \$1400 each. (Recently noted.)

Tex., Marshall.—First Baptist Church awarded contract to erect parsonage; two stories; 10 rooms; cost \$3500. Address The Pastor, First Baptist Church.

Va., Norfolk.—W. N. Eason awarded contract to Sawyer Bros., Norfolk, to erect residence; two stories; frame; cost \$2650. (Recently noted.)

Va., Norfolk.—R. L. Payne awarded contract to Baker & Brinkley, Norfolk, to erect residence; cost \$10,000; plans by B. F. Mitchell, Norfolk. (Recently noted.)

Va., Norfolk.—L. W. Morewitz awarded contract to C. T. Holtzclaw, Hampton, Va., to erect store and residence; two stories; brick; cost \$3900.

Va., Norfolk.—W. N. Eason awarded contract to W. F. & J. T. Sawyer, Norfolk, to \$2000; dwelling will be 20x34 feet; mill construction; stoves; gas and electric lighting; plans by W. F. Sawyer.

Va., Norfolk.—E. A. Odenhal awarded contract to G. F. Cox, Norfolk, to erect proposed dwelling; eight rooms; hot-air heat; gas and electric lighting; cost \$3500.

W. Va., Parkersburg.—Richard Ault awarded contract to George Davidson, Parkersburg, to erect residence; pressed brick.

GOVERNMENT AND STATE

Ark., Hope.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract at \$29,950 to Moos & Rogers, Marshall, Tex., to erect postoffice building. (Recently noted as lowest bidders.)

HOTELS

Fla., Hampton Springs.—J. W. Oglesby, Quitman, Ga., has awarded contracts for erection of addition to hotel to cost \$50,000 to \$75,000; construction begun. (Recently noted.)

N. C., Raleigh.—Grimes Estate Realty Co. awarded contract to York & Cobb, Raleigh, for improvements to Yarbrough Hotel; will increase from 90 to 125 rooms; cost about \$50,000; building is 28x160 feet; ordinary construction; low-pressure steam heat; gas and electric lighting; electric passenger and hand-power elevator; plans by Frank K. Thomson, Raleigh; contract for electrical equipment has been let. (Recently noted.)

N. C., Raleigh.—Jones & Bailey awarded contract to erect hotel; six stories; reinforced concrete with brick veneer; 54x105 feet; cost about \$75,000. (John H. Pierce of Norfolk, Va., recently noted as lowest bidder.)

N. C., Weldon.—Weldon Hotel Co. awarded contract to Wise Granite Co., Columbia, S. C., to erect proposed hotel; three stories; brick; granite trimmings; hardwood floors in dining-room, library and halls; 43 bedrooms; steam heating; cost \$25,000.

S. C., Fairfax.—J. Fred Lightsey and Otis M. Compton awarded contract to J. J. Knopf to erect hotel; brick construction; 28 rooms; will be equipped with water-works, etc.; cost, including furnishings, \$14,000.

Tex., Galveston.—John F. Lawrence awarded contract to erect proposed Beach Hotel; cement stucco; three stories; 40 to 50 rooms; cost about \$20,000.

MISCELLANEOUS

Md., Baltimore.—Gymnasium and Parish House.—Bishop of Episcopal Church has plans by and awarded contract to McLaughlin Bros., 915 Bolton St., Baltimore, and Philadelphia, Pa., to erect proposed parish house and gymnasium; 60x100 feet; steam heat; electric lighting; cost \$20,000.

Md., Baltimore.—Orphanage.—St. Vincent's Male Orphan Asylum awarded contract to J. J. O'Connor, 427 E. Lexington St., Baltimore, to erect dormitory and infirmary building; three stories and basement; Baltimore county granite; marble trimmings; cost about \$30,000; plans by Francis E. Tormey, 802 Law Bldg., Baltimore; construction begun. (Previously noted.)

Mo., St. Louis.—Freight Sheds.—Kansas City Transportation & Steamship Co., Midland Bldg., awarded contract to Myers Construction Co., St. Louis, to erect freight shed; 76x187 feet; ordinary construction; to be equipped with electric hoist traveling on I-beam track; cost \$10,000; plans by Daniel Bontecou, consulting engineer. (Recently noted.)

N. C., Roxboro.—Postoffice.—H. F. Smith of Durham, N. C., has contract to erect postoffice, store and office building. (See "Bank and Office.")

N. C., Salisbury.—Stable.—Henkel & Craig awarded contract to R. A. Brown's Sons, Concord, N. C., to erect stable and store building.

Tex., San Antonio.—Bathhouse.—H. J. Benson and associates awarded contract to Gordon-Jones Company to erect bathhouse at Harlandale; cost \$50,000.

N. C., Winston-Salem.—Stable, etc.—Huntley-Hill-Stockton Company awarded contract to Ange Construction Co., Winston-Salem, to erect stable and garage. (See "Stores.")

RAILWAY STATIONS

Ala., Troy.—Atlantic Coast Line Railway, E. B. Pleasants, chief engineer, Wilmington, N. C., awarded contract to J. W. F. Yates, Thomasville, Ga., to erect freight depot.

Ky., Hickman.—Chicago, Milwaukee & Gary Railroad Co., A. T. Perkins, president, 401 Locust St., St. Louis, Mo., awarded contract to Mr. Tull of Trimble, Tenn., to erect proposed depot.

Tenn., Memphis.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., and Nashville, Chattanooga & St. Louis Railway, H. McDonald, chief engineer, Nashville, Tenn., awarded contract to Oslen & Lesh, Memphis, to erect joint inbound and outbound freight depots to cost about \$100,000; former to be one story and latter two stories; brick and concrete; mill construction.

SCHOOLS

Ark., Little Rock.—City awarded contract to George W. Fair, Little Rock, to erect addition to Scott-street school; cost \$25,000.

La., Alexandria.—Baptist College Building Committee awarded contract to S. J. Reichhold of Winnfield, La., to erect proposed building; two stories; frame; 40x60 feet; will also repair brick kitchen and dining hall, etc.

Ga., Crawford.—City has plans by and awarded contract to J. G. Stokely, Crawford, to erect school building; two stories; 45x80 feet; ordinary construction; cost \$9000; construction begun. (Recently noted.)

Ga., Macon.—Wesleyan Female College awarded contract to J. H. B. Wilder, Macon, to erect gymnasium building; four stories; face brick and Georgia marble; fireproof; cost \$35,000; plans by P. E. Dennes, Macon.

Okla., Brinkman.—Consolidated School District No. 1 awarded contract to Mr. Shaw, Roma, Tex., to erect school building; 60x62 feet; brick; steam heat; lighting not decided; cost \$10,200; plans by J. C. Chisem, Altus, Okla. (Previously noted to vote \$12,000 bond issue.)

Tex., Kerens.—City awarded contract to Berry & Metcalf, Corsicana, Tex., to erect school; brick construction; cost \$16,000. (Previously noted.)

Tex., Floydada.—City awarded contract to erect school to cost \$18,000. Address The Mayor.

Va., Charlottesville.—Stadium.—University of Virginia plans to erect stadium; cement seats around athletic field to seat 15,000; plans by Lee Taylor, Norfolk.

Va., Lonaconing.—Allegheny county awarded contract to Olin Gerlach, Frostburg, Md., to erect annex to Central High School; cost \$11,000. (Previously noted.)

STORES

Ala., Fort Payne.—D. D. Horton, Fort Payne, has contract to erect 50x80-foot fireproof store building.

D. C., Washington.—Henry White awarded contract to Norcross Bros. Company, Colorado Bldg., Washington, to repair building at 1621 Belmont St. N. W.; cost \$20,000; plans by John Russell Pope, 527 Fifth Ave., New York.

D. C., Washington.—George Von L. Meyer, 1301 16th St. N. W., awarded contract to J. F. Newman, Colorado Bldg., Washington, to repair building at 1414 H St. N. W.; cost \$55,000.

D. C., Washington.—Mrs. F. H. Sewell awarded contract to Randolph L. Jennings, 1325 G St. N. W., Washington, to repair building at 1829 Phelps Pl. N. W.; cost \$3500; plans by Milton Dana Morrill, 405 Corcoran Bldg., Washington.

Fla., Plant City.—Strickland Bros. awarded contract to J. F. Fletcher, Plant City, to erect business building; two stories; plans by F. J. Kennard, Tampa, Fla.

Ga., Statesboro.—W. S. Pretorius awarded contract to A. J. Franklin, Statesboro, to erect store and garage; two stories; 50x60 feet; brick; cost \$5000. (Recently noted.)

Miss., Jackson.—R. H. Purnell awarded contract to J. F. Barnes, Jackson, to erect business building; two stories; brick; will be occupied by Keenington Department Store.

Mo., Kansas City.—J. A. Ritzler awarded contract to Lonsdale Bros., Kansas City, to erect store and apartment building; two stories; 50x80 feet; ordinary construction; heating and lighting not decided; cost \$16,000; plans by Edgar C. Farries, Kansas City. (Lonsdale Bros. recently noted to erect.)

N. C., Roxboro.—H. F. Smith of Durham, N. C., has contract to erect store, office and postoffice building. (See "Bank and Office.")

N. C., Salisbury.—Henkel & Craig awarded contract to R. A. Brown's Sons, Concord, N. C., to erect store and stable building.

N. C., Wadesboro.—James A. & R. L. Hardison's store and office building will be 80x126 feet; three stories and basement; pressed brick with granite trimmings; contract price, \$21,000; contract recently noted awarded to Stephenson & Miller, Rockingham, N. C.

Tex., Dallas.—H. N. Fitzgerald awarded contract to J. M. Green, Dallas, to erect business building; two stories; brick; 50x90 feet; cost \$11,500; plans by J. O. Gill, Dallas.

Tex., Dallas.—S. H. Kress & Co. awarded contract to erect store building; three stories and basement; 70x100 feet; steel and brick; concrete beams; cost \$38,000. (Recently noted.)

Tex., Edna.—W. W. McCrory awarded contract to erect business building; brick construction.

Tex., Fort Worth.—Hunt-Hawes Grocery Co. awarded contract to erect business building; 100x100 feet; four stories and basement; cost \$30,000. (Recently noted.)

Tex., Pecos.—Hiser & Boso have contract to erect two-story store and office building to replace Lipscomb Bldg. (See "Bank and Office.")

Va., Norfolk.—L. W. Morewitz awarded contract to C. T. Holtzclaw, Hampton, Va., to erect store and residence. (See "Dwellings.")

Va., Roanoke.—Gills & Dudley awarded contract to J. F. Barbour, Roanoke, to erect store building; three stories; brick; cost about \$10,000. (Recently noted under Bedford City, Va.)

W. Va., Martinsburg.—Charles Kudy awarded contract to S. A. Westenhaver, Martinsburg, to erect combined store and dwelling; cost \$6000; plans by A. E. Kent.

W. Va., Williamson.—Juhling Bros. will expend \$5000 to erect business building; two stories; 25x90 feet; ordinary construction; stoves and grates; first floor store; apartment above; contracts recently noted awarded to McConnell Bros. of Williamson for brick work, and to J. H. Jamison, Princeton, W. Va., for woodwork.

THEATERS

D. C., Washington.—Riggs Realty Co. awarded contract to Wells Bros. Company, New York, to erect theater and office building. (See "Bank and Office.")

Okla., Poteau.—Blair & Mills awarded contract to J. S. Terry, Poteau, to erect opera-house; seating capacity at least 1000; cost \$18,000. (Recently noted.)

Tenn., Knoxville.—Gay Theater Co. awarded contract to H. B. Albertson, Chattanooga, Tenn., to remodel theater; 130x40

feet; one story; fireproof construction; steam heat; electric lighting; cost \$8000; plans by Edwin Okel, Jr., Montgomery, Ala. (Company recently noted organized with \$25,000 capital stock.)

Va., Norfolk.—Concord Realty Co. awarded contract at \$38,782 to N. Rooney, Richmond, Va., to erect Victoria Theater on Granby St.; plans by S. K. Howells, Richmond, Va. (Recently described.)

WAREHOUSES

Ala., Ensley.—Ensley Land Co. awarded contract to J. S. Baker, Ensley, to erect warehouse; one story; 75x100 feet; brick; tar and gravel roof. (Recently noted.)

La., Abbeville.—Planters' Rice Mill awarded contract to Caldwell Bros., Abbeville, to erect proposed warehouse; brick; concrete foundation; 160x160 feet.

Md., Baltimore.—Wm. G. Scarlett & Co., 723-35 E. Pratt St., awarded contract to

Charles L. Stockhausen, 1 National Marine Bank Bldg., Baltimore, to erect warehouse at Pratt St. and East Falls Ave.; six stories; brick; 64x57 feet; cost, exclusive of plumbing, elevators, etc., \$30,000; plans by Owens & Sisco, 1605 Continental Bldg., Baltimore.

N. C., Wilmington.—Swift & Co., Chicago, Ill., awarded contract to A. D. O'Brien, Wilmington, to erect warehouse; cost several thousand dollars.

Tenn., Memphis.—Taylor Paper Co. awarded contract to F. D. Young, Memphis Trust Bldg., Memphis, to erect paper warehouse; 65x60 feet; concrete, brick and mill construction; three-way prism glass sidewalks; cost \$35,000; plans by Jones & Furbinger, Memphis. (Recently noted.)

Va., Lynchburg.—Lynchburg Milling Co. awarded contract to J. L. Walker, Lynchburg, to erect warehouse and grain elevator; brick; four stories; 64x35 feet; plans by Heard & Caldwell, Lynchburg.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Decatur.—The Louisville & Nashville Railroad, says a dispatch, is contemplating the construction of a line from Athens, Ala., to connect with the Louisville & Northern Railroad. W. H. Courtenay is chief engineer at Louisville, Ky. Papers are reported filed.

Ala., Mobile.—The Pensacola, Mobile & New Orleans Railway Co. has filed a mortgage to secure \$750,000 of bonds to continue construction of its line from Pensacola, Fla., to Mobile, Ala. Construction for the terminal at Pensacola is reported just begun. Henry McLaughlin of Pensacola is president.

Ala., Moundville.—President John L. Kaul of the Kaul Lumber Co. is quoted as saying that survey is about to begin for a railroad from Moundville to timber lands.

Ark., Dermott.—The Dermott, Selma & Northern Railroad is reported chartered from Dermott to Selma, Ark., 15 miles. The Leavitt Land & Lumber Co. is the owner. Improvements are proposed.

Ark., Portland.—H. S. James, promoter of a railroad to be built from Portland, Ark., to Lake Providence and Waverly, La., is reported going over the route with James F. Brooks, chief engineer.

D. C., Washington.—An officer of the Washington, Westminster & Gettysburg Railroad Co. says that the proposed line will be 86 miles long from Washington, D. C., to Gettysburg, Pa., via Mount Airy and Westminster, Md., and Littlestown, Pa. Pending action by the Maryland Public Service Commission the company is unable to give further particulars. Officers: Wm. H. Saunders, president; Henry L. West, vice-president; I. H. Saunders, secretary and treasurer, 1407 F St., Washington, D. C.; T. B. Redmond, general manager; Walter Atlee, chief engineer.

D. C., Washington.—James S. Groves, president of the Mount Ida Realty Co., and associates, it is reported, contemplate building an electric railway from Washington via Mount Ida to Alexandria, Va., about seven miles.

Fla., Mulberry.—The Seaboard Air Line, it is reported, will soon build an extension from Mulberry to Bartow, Fla., 20 miles, using six miles of grade built by the promoters of a proposed electric railway out of Bartow. W. L. Seddon is chief engineer at Portsmouth, Va.

Fla., Ocala.—A dispatch says that E. P. Rentz of Ocala, president of the Ocala Northern Railroad, is making arrangements to build the contemplated electric railway from Ocala to Silver Springs, for which a grade only needs repaving. D. S. Woodrow is mentioned as president of the company, called the Lake Weir, Ocala & Silver Springs Suburban; E. W. Davis, secretary and treasurer, and H. A. Kramer, general manager.

Fla., Pensacola.—Construction is reported begun in Pensacola for the Gulf, Florida & Alabama Railroad, projected by R. C. Megeorge, 5 Nassau St., New York, and others, C. W. Merritt having the contract. Line to run from Pensacola, Fla., to Jasper, Ala., 275 miles.

Fla., Tampa.—H. C. Ferriot of New Orleans, president, and Hiram McElroy, chief engineer, of the proposed Atlantic, Okeechobee & Gulf Railway, are reported to have just visited Tampa, and the former is quoted as saying that franchises have been granted by every town except Tampa on the proposed route across Florida to Miami; also that negotiations have been practically concluded with W. J. Oliver of Knoxville, Tenn., to

build the road. Wall & McKay of Tampa are attorneys for the company.

Ga., Cairo.—A committee from the Board of Trade, composed of W. B. Roddenberry, C. G. Stephens, Thomas Wight and J. J. Coppage, is reported conferring with officials of the Gulf Line Railway relative to having the road built to Cairo. R. W. Watson is president at 37 Wall St., New York.

Ga., Gainesville.—Reported that the Gainesville Midland Railroad has made arrangements to build an extension from Gainesville north to Robertstown, about 25 miles. W. B. Denham is general manager at Gainesville, Ga.

Ga., Macon.—Arthur B. Elliott of London, England, and W. C. Kenyon of Chicago are reported interested in the plan to build an interurban electric railway from Macon to Atlanta, 80 miles. W. Jordan Massee of Macon being president of the company having the matter in charge.

Ga., Valdosta.—The Valdosta, Moultrie & Western Railroad, says a dispatch, has authorized an issue of \$600,000 of bonds to improve terminals in Moultrie and build an extension. Frank Roberts of Valdosta is president.

Ky., Bowling Green.—A citizens' movement is under way, according to a report, to secure the building by H. H. Mayberry of Nashville, Tenn., of an electric interurban railway from Gallatin, Tenn., via Franklin to Bowling Green, about 40 miles. W. C. Sumpter, president of the Bowling Green Business Men's Association, can probably give information.

La., Erwinville.—M. L. Linnan of Baton Rouge, La., is reported to have a contract for grading on the Frisco extension of seven miles from Lakeland along False River to the Mix Place, making the Erwinville line 14 miles long.

La., New Iberia.—Franchise has been granted, according to a dispatch, in New Iberia for the proposed electric railway of the Southwestern Traction & Power Co., promoted by F. W. Crosby, president, Tenege Bldg., New Orleans.

La., Walker.—An official of the Maurepas & Northern Railroad is quoted as saying that the company expects to soon award contracts for a line from Clio via Walker to Live Oak, La., about 60 miles. Four short steel bridges required. S. J. McKenzie is president and J. R. McKenzie chief engineer, both of Adrian, Minn.

Md., Baltimore.—Steps are being taken to build the proposed railroad to connect Baltimore with Drum Point, Md., by a line about 50 miles long. Considerable grading was done some years ago, beginning near Millersville, Md., about 20 miles south of Baltimore, and it is now contemplated to start construction there, making an immediate connection with the Washington, Baltimore & Annapolis Electric Railway. Sturgis, Anderson & Holloman, Gaither Bldg., Baltimore, are understood to represent capital for the enterprise. A company is proposed with L. M. Sturgis, president; C. H. Anderson, vice-president, and L. E. Holloman, secretary. Work may begin by July 1. H. L. White, formerly supervisor of the Norfolk & Southern, and also of the New York, Philadelphia & Norfolk Railroad, is to have charge of construction. The president and directors of the Washington, Baltimore & Annapolis Electric Railway are expected to inspect the right of way of the proposed road.

Miss., Port Gibson.—Concerning the report that it was contemplated to build a railroad from Port Gibson to Edwards, Miss., a letter says that the matter is as yet only talk.

N. C., Burlington.—An officer of the Piedmont Railway & Electric Co. is reported saying about half the work has been done on the line to connect Burlington, Graham and Haw River, 11 miles. G. W. Hatch is engineer.

N. C., Lillington.—The Central Carolina Railroad Co. will build 20 miles of line from Broadway via Lillington to Buie's Creek, N. C., this being practically an extension of the Atlantic & Western Railroad, and the work will be done by the railroad company. The work includes a bridge about 500 feet long. Route level. W. J. Edwards is president and general manager of the Central Carolina at Sanford, N. C.; H. P. Edwards is secretary and treasurer, and others interested are Jessie Carter, J. W. Cunningham and W. H. Fitts, all of Sanford.

N. C., Springhope.—The Atlantic Coast Line, according to a report quoting an official, contemplates building an extension from Springhope to Raleigh, about 30 miles. E. B. Pleasant is chief engineer at Wilmington, N. C.

N. C., Waynesville.—C. J. Lantry of Chicago, according to a dispatch from Raleigh, N. C., stated at a meeting of promoters of the South Atlantic Transcontinental Railroad, held before the Governor and Council, that \$11,000,000 of French capital has been secured for construction of the line, which has been actively urged for several years by Col. S. A. Jones of Waynesville, N. C. W. E. Breese, Jr., of Brevard, N. C., is quoted as saying that the line will be completed within two years.

Okla., Britton.—The Oklahoma Railway's extension from a point near Britton to Edmond, six miles, is reported finished and ready for operation.

Okla., Cheyenne.—The Oklahoma Pacific Railroad Co., says a dispatch, has been chartered to build from a point on the Texas boundary west of Cheyenne to Oklahoma City, with a branch to the Texas boundary south of Comanche county. Total length 275 miles. Capital \$6,000,000. Incorporators, R. K. Kelley, L. K. Rodbyack and Alonzo Osborne of Mountain Park, Okla., and G. M. Hohl and Samuel Bretch of Hobart, Okla.

Okla., Hammon.—The Wichita Falls & Northwestern Railway, says an official, will build an extension through rough country from Hammon to Woodward, Okla., 67 miles, via Leedy, Vrail and Vici. J. A. Kemp is president, Frank Kell vice-president and general manager, and R. A. Thompson chief engineer at Wichita Falls, Tex.

Okla., Hugo.—The Chamber of Commerce is reported to have closed a contract for construction of the Hugo & Northwestern Railroad from Hugo via Atoka to Lehigh, Okla., and survey has begun. The secretary may be able to give information.

Okla., Lawton.—Information is received that the Development Corporation Co., Drexel Bldg., Philadelphia, Pa., is undertaking to finance the proposed railroad from Lawton via Duncan and Oil City to Ardmore, Okla. E. C. Lee representing the concern.

Okla., Oklahoma City.—H. Leone Miller, president and general manager of the Winniepeg, Salina & Gulf Railway Co., Salina, Kans., writes claiming that it will build from Omaha, Neb., to Oklahoma City, Okla., which is about 425 miles, through rolling country, including seven steel bridges, besides a large number of wooden bridges and culverts here and there. He also says that the entire bond issue (\$29,997,000) has been sold through Samuel R. MacLean, 9 Bishopsgate, E. C., London, England, and as soon as preliminaries can be closed up construction will begin between Oklahoma City and Okene, Okla., which, it is expected, may be done by August 1. The other directors are Otto Peterson, vice-president; M. H. Potter, treasurer; H. J. Nesmith, secretary; George T. Stevenson, M. J. Quinn, R. C. Wilson, B. F. Brown, I. H. Leith, Jos. B. Lockard and K. J. Russon.

S. C., Bennettsville.—Construction is reported begun on an extension of the Bennettsville & Cheraw Railroad from Brownsville to Sellers, S. C., about 10 miles. H. A. Page is general superintendent at Bennettsville, S. C.

S. C., Bamberg.—The Bamberg, Ehrhardt & Walterboro Railway Co. will build 11 miles of line from Bamberg to Ehrhardt, S. C., including two wooden bridges. Route level. Contract let to the Ajax Construction Co., a South Carolina corporation. Also contemplated to build from Bamberg to either Denmark, seven miles, or to Johnson's Siding, four miles, to connect with the Atlantic Coast Line. Directors, J. Aldrich Wyman, president, Bamberg, S. C.; Thomas Black, first vice-president; W. M. Brabham,

second vice-president; W. D. Rhoad, secretary and treasurer; A. Rice, A. M. Brabham, J. F. Carter and A. W. Knight, all of Bamberg, S. C., and H. A. Hughes of Ehrhardt, S. C. F. W. Frederick of Orangeburg, S. C., is chief engineer.

Tenn., Dyersburg.—The Chicago, Memphis & Gulf Railroad, which lately completed its extension to Hickman, Ky., and is now about to continue construction to Clinton, in that State, will, it is reported, later extend south from Dyersburg to Memphis, Tenn., about 70 miles. S. G. Latta is president and general manager at Dyersburg, Tenn.

Tenn., Johnson City.—R. E. Dyer, civil engineer, is reported making preliminary survey with a view to building a railroad from Johnson City to connect with the Carolina & Northwestern Railroad at Edgemont, N. C.

Tenn., Johnson City.—A dispatch reports that the Johnson City, Milligan & Elizabethton Electric Railway Co. announces that construction of its proposed line, 12 miles long, will begin immediately. John G. Burchfield is president; W. G. Payne, vice-president; A. B. Bowman, treasurer; J. N. Edens, secretary. Other directors are J. H. Smith and W. C. Burchfield.

Tex., Alpine.—The Kansas City, Mexico & Orient Railway, says a report, has contracted with Alpine to extend its line from Fort Stockton, 75 miles. It will soon be completed to the latter. Later it will build from Alpine to Presidio del Norte, on the Rio Grande, about 85 miles. C. H. Webster of Sweetwater, Tex., is chief engineer for the company in Texas.

Tex., Bonham.—The Denison, Bonham & New Orleans Railroad is reported sold to E. D. Steger of Bonham, Tex., by the Southern Railway Construction Co., and an extension is expected. Mr. Steger is president of the line.

Tex., Brownwood.—The Brownwood North & South Railroad is reported to have finished grading from Brownwood to May, Tex., the Texas Grading Co. of Fort Worth, being the contractor. It is rumored that it will be continued to Rising Star, and eventually to Vernon, Tex., 170 miles. John Mead of Brownwood, Tex., is chief engineer.

Tex., Crystal City.—A report quoting an officer says that the Crystal City & Uvalde Railroad has let contract to Ward & Lee of Gardendale to build the proposed extension from Gardendale to Dulls, Tex., about 25 miles.

Tex., Fort Worth.—The Texas & Pacific Railway is reported making plans for enlarging station and yard facilities at Fort Worth. B. S. Wathen is chief engineer at Dallas, Tex.

Tex., Sanfordyce.—The St. Louis, Brownsville & Mexico Railway, it is reported, will extend its line from Sanfordyce to Roma, Tex., 45 miles, and thence to Laredo, Tex., a total distance of 110 miles. E. C. Burgess is chief engineer at Kingsville, Tex.

Va., Newport News.—An officer of the Chesapeake & Ohio Railway denies the press report that it will extend its tracks to the Grand View Hotel property of the Ocean Beach Improvement Co.

Va., Norfolk.—A dispatch says that bids will be opened June 15 for construction of the railway and steamship terminal of the Old Dominion Terminal Co., previously reported. L. E. Johnson, president of the Norfolk & Western Railway, Roanoke, Va., and others are interested.

Va., Norfolk.—An officer of the New York, Philadelphia & Norfolk Railroad, with reference to the recent purchase of land there, says that the company is not contemplating any extension of yard tracks or the construction of additional piers at Port Norfolk in the near future.

Va., Staunton.—Plans are under consideration to build an electric railway from Staunton to Waynesboro, 10 miles, and J. M. Spotts, president of the Blue Ridge Light & Power Co. of Staunton, is quoted as saying that J. F. Cassell, engineer of his company, is preparing estimates of the cost of construction; also, that no company has yet been organized to build the line.

W. Va., Logan.—The Dingess Run Coal Co. is reported to have let contract to Charles E. Price to build a seven-mile railroad from a connection with the Guyan Valley branch of the Chesapeake & Ohio Railway up Run Creek to open coal and timber lands in Logan county.

W. Va., Parkersburg.—The Parkersburg, Marietta & Interurban Railway is reported preparing plans for an extension from Parkersburg to Fairview Heights. J. P. Horstman is chief engineer at Parkersburg, W. Va.

W. Va., Romney.—The Twin Mountain & Potomac Railway Co. is chartered to build a line from McNeill, on the Hampshire

Southern Railway, in Hardy county, to Twin Mountain, in Grant county, several miles; incorporators, R. T. Cunningham, H. R. Helntzelman, J. M. Brownfield, Kemble White and E. A. Russell, all of Fairmont, W. Va.; capital \$100,000.

W. Va., Richwood.—One of the incorporators of the Richwood & Gauley Railroad Co., recently chartered to build a line along Cherry River to open coal and timber lands, says that definite information concerning the enterprise may be given later. The Cherry River Boom & Lumber Co. appears to be interested.

W. Va., Sistersville.—A dispatch says that C. L. Williams, receiver of the Parkersburg & Ohio Valley Electric Railway, has been authorized to issue \$30,000 of certificates to complete the line between Sistersville and Friendly and to pay interest on bonds. About \$9000, it is said, is required for construction.

W. Va., Wheeling.—The Panhandle Traction Co. is reported to have been granted a franchise to lay a third rail from the city limits to a point beyond Glenova. Work is expected to begin soon.

STREET RAILWAYS

Miss., Hattiesburg.—The Hattiesburg Traction Co., says a dispatch, contemplates making some extensions. S. E. Travis is president.

Mo., Kansas City.—An ordinance has been introduced in the City Council for an extension of the street railway on Prospect Ave. from 15th St. to the East Bottoms on Chestnut Ave.

Okl., Enid.—The Burbank Reinforced Concrete Railway Co. of Enid has been chartered to build one mile of street railway. Capital \$10,000. Directors, Charles Burbank, Roy W. Thomas, James W. Steen, William R. Russell and Joseph J. Klein, all of Enid, Okla.

Tex., Bryan.—A dispatch says that citizens have determined to extend the Bryan-College Interurban Electric Railway to the Villa Maria Ursuline Convent, about two miles, and that O. E. Gammill will probably do the work.

Tex., Marshall.—The Marshall Traction Co., says a dispatch, has completed its line to the east side of Marshall and established regular service.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Asbestos Roofing, etc.—See "Iron and Steel, etc."

Automobile Supplies.—See "Machinery Supplies, etc."

Bar-iron Mills.—Christian & Brough Company, 911 Washington St., Vicksburg, Miss., wants addresses of manufacturers of bar iron who operate south of Ohio River.

Bank Furniture, etc.—Guaranty State Bank, Lindale, Tex., wants prices on vault door, bank furniture and fixtures.

Boilers.—See "Electrical Machinery."

Boiler.—See "Electrical Machinery."

Boilers.—Lafayette Wager and Light Plant, W. L. Byres, superintendent, Lafayette, La., will want prices on boilers.

Boilers, etc.—Proposals will be received by Board of Managers Missouri State Sanatorium at Mt. Vernon, Mo., until 1 P. M. June 3 for furnishing and installation of 175-horse power water and fire tubular boiler, additional apparatus, and pipe work in powerhouse; also for pipe covering in powerhouse and tunnels of said institution. Plans, details and specifications can be seen at office of E. W. Schaudler, president Board of Managers, Room 317 Argyle Bldg., Kansas City, Mo., and office of H. H. Hohenschild, 309 Navarre Bldg., St. Louis, Mo. Applications for details and plans must be directed to architect, H. H. Hohenschild, at above address; each bid to be accompanied by certified check for \$300; W. L. Gupton, secretary Board of Managers.

Bottles.—R. F. O'Brien, Fuller, Kaus, wants addresses of manufacturers of or wholesale dealers in 2-ounce to 16-ounce bottles.

Bone Mill.—See "Sausage and Bone Mill."

Box Machinery.—C. A. Rose, 8 Lall Bazar, Calcutta, India, wants complete information and prices on machinery for manufacturing wooden boxes.

Brick Plant.—J. W. Marshall, West Point, Va., wants new or second-hand power plant, from 10 to 15 horse-power, for operating brick machine; could use boiler and engine, gasoline engine or producer-gas plant; wants to correspond with parties having complete brick-making plant to sell.

Brick Machinery, etc.—W. A. Carver, Rougemont, N. C., wants prices on brick machinery for plant of 30,000 capacity per 10 hours; also data on brick manufacture.

Bricks.—Prairie Pebble Phosphate Co., 165 Broadway, New York, wants data and prices on different kinds of bricks manufactured in Georgia, Alabama, South Carolina and Florida; manufacturers and dealers are requested to send particulars immediately.

Bridge.—Leflore County Supervisors, Greenwood, Miss., will open bids June 5 to construct steel drawbridge across Tallahatchie River at Minter City; cost about \$25,000; plans by W. T. Young Bridge Co., Nashville, Tenn., and are on file in Chancery

Clerk's office, courthouse; C. W. Crockett, clerk. (Recently noted.)

Bridge Builders.—D. B. McKay, Mayor, Tampa, Fla., wants to correspond with bridge builders; city is contemplating erection of \$130,000 bridge.

Bridge Construction.—J. H. Ferguson, W. D. Haynes and C. M. Turner (committee appointed by Franklin county supervisors) will receive proposals at Rocky Mount, Va., June 24 for construction of bridge over Pigg River at Haynes' Ford; also bridge over Chestnut Creek, in Franklin county; bidders to file plans and specifications upon which bids are based; bridges to be of iron, with sufficient piers; rights reserved.

Bridge Construction.—James F. Weed, County Engineer, Beaumont, Tex., receives bids until noon June 7 for furnishing material and construction of seven-span wooden bridge on creosoted pile foundation over Alligator Bayou, between Port Arthur and El Vista; require about 600 linear feet of creosoted piling; bridge 106 feet long and 18 feet wide.

Bridge Construction.—Board of Orange County Commissioners will receive bids until July 3 at Orlando, Fla., for construction of steel swing bridge across west branch of St. John's River and wooden swing bridge over eastern branch of St. John's River at Geneva Ferry; plans and specifications are to be found at clerk's office; certified check for \$1200 must accompany each bid; usual rights reserved; B. M. Robinson, clerk of board.

Bridge Construction.—Sealed proposals received at office of Dan C. Smith, Jr., city controller and city secretary, city hall, Houston, Tex., until 12 noon July 3 for construction of reinforced-concrete viaduct over Houston ship channel; structure about 1650 feet in length and 60 feet wide; specifications and plans, bidding blanks, etc., can be obtained upon application at office of F. L. Dormant, City Engineer, Houston, Tex., on deposit of \$20; certified check of bidder on any bank in Houston, payable to order of H. B. Rice, Mayor, for \$20 will be required; bidders are expected to examine site of viaduct and acquaint themselves with local conditions; successful bidder will be required to give bond and comply with city charter respecting contracts, and to execute usual form of contract as prepared by city attorney; usual rights reserved.

Blower.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on 45-inch pressure blower.

Boiler and Engine.—Gulf Line Railway Co., W. T. Hargrett, general superintendent, Sylvester, Ga., wants prices on 60-horse-power steam boiler and engine.

Boiler.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on 150-horse-power boiler.

Building Materials.—J. Henry Yentzen, Yoakum, Tex., wants prices on Roman

pressed brick, red Texas granite and terra cotta, slate, asbestos shingles, floor and wall tile.

Building Materials.—See "Iron and Steel, etc."

Building Materials.—C. H. Turner & Co., Evinston, Va., want prices on plumbing, electric wiring, framing lumber, brick and mill work.

Burlap Bags.—Harris Granite Quarries Co., Salisbury, N. C., wants samples and quotations on burlap bags for shipping fine crushed quartz.

Cable.—Office of Chief Signal Officer, Capt. A. S. Cowan, disbursing officer, War Department, Washington, D. C., will receive bids until June 17 for furnishing large and miscellaneous lot of cable. Send for specifications.

Cable.—See "Cranes, etc."

Canning Machinery.—F. W. Sterling, secretary Board of Trade, Bessemer, Ala., wants list of manufacturers of canning machinery.

Cars.—See "Cranes, etc."

Cars.—Piedmont Railway & Electric Co. (J. M. Cook, Burlington, N. C., and others) will purchase cars for proposed railway.

Cars.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and S. Penn Sq., Philadelphia, Pa., wants three or four six-yard slide-dump cars, four foot gauge.

Cider Press, etc.—C. H. Linker, Elmore, O., wants addresses of manufacturers of cider presses, grinders, etc.

Clayworking Machinery.—Clay Product Co., J. A. Hines, president, Wickliffe, Ky., will purchase machinery for manufacturing stoneware, tiling, etc.

Coal.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. June 6, and publicly opened immediately thereafter, to furnish at Naval Academy, Annapolis, Md., a quantity of naval supplies, as follows: Schedule 3006, bituminous coal; schedule 3570, bituminous coal. Applications for proposals should designate the schedules desired by number. Blank proposals furnished upon application to navy pay office, Baltimore, Md., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Coal.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. June 6, and opened immediately thereafter, to furnish at navy-yard, Pensacola, Fla., quantity of bituminous coal. Applications for proposals should refer to schedule 3006. Blank proposals furnished upon application to navy pay office, Pensacola, Fla., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Condensing and Evaporating Machinery.—Geo. J. Adams, 39 South St., corner Old Slip, New York, wants three surface condensers, 2500 square feet; also two evaporators, 10,000 gallons capacity. (Recently incorrectly noted.)

Cotton Baling.—P. Adler, 2603 Second Ave., New York, wants addresses of manufacturers of 14-ounce Royal commercial batt.

Crane.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., will open bids June 20 for furnishing and installing locomotive crane, schedule 3638; delivery navy-yard, Washington, D. C.; for copies apply to navy pay office nearest navy-yard.

Cranes, etc.—Sealed proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. June 22, and then opened, for furnishing cargo-handling and locomotive cranes, gasoline engine-driven passenger car, rock skips, chaplets, electric cable and cable terminals; blanks and general information relating to this circular (No. 634) may be obtained at above office or offices of assistant purchasing agents, 24 State St., New York; 55 National Realty Bldg., New Orleans; 1086 North Point St., San Francisco; also from U. S. Engineer Office in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Cranes, etc.—Proposals will be received at office of general purchasing officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. June 22, at which time they will be opened in public, for furnishing cargo-handling and locomotive cranes, gasoline engine-driven passenger cars, rock skips, chaplets, electric cable and cable terminals. Blanks and general information relating to this circular (No. 634) may be obtained from

office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill.; and Chamber of Commerce and Board of Trade, Tacoma; C. C. Boggs, Captain, Corps of Engineers, U. S. A., general purchasing officer.

Cement.—See "Iron and Steel, etc."

Crushing Machinery.—Farmers' Cooperative Fruit Land Development Association, Oliver Springs, Tex. will want equipment for plant to crush limestone for commercial purposes.

Dental Goods.—Em. Rosenfeld, 97, Rue D'Aboukir, Paris, France, is interested (chiefly on commission) in prices on teeth.

Drill Press.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on drill press.

Dredges.—U. S. Engineer Office, Wilmington, N. C., June 1. Sealed proposals for constructing complete two wooden-hull non-propelling 15-inch hydraulic pipe-line dredges Neuse and Port Arthur will be received until noon June 30, and then publicly opened. Information on application, Earl I. Brown, Captain, Engineers.

Dredging.—U. S. Engineer Office, Mobile, Ala. Sealed proposals for dredging in harbor will be received until 11 A. M. June 27, and then publicly opened. Information on application, C. A. C. Flagler, Major, Engineers.

Dredging.—U. S. Engineer Office, Room 309 Custom-house, Baltimore, Md. Proposals for dredging in Rockhall, Queenstown, Claborne and Cambridge harbors, and Susquehanna, Chester, Choptank, Warwick, Pocomoke, La Trappe, Wicomico and Manokin rivers and Tyaskin Creek, Maryland; Nanticoke River, Delaware and Maryland, and Broad Creek River, Delaware, will be received until 1 P. M. June 26. Information on application, Thos. L. Casey, Colonel, Engineers.

Dredging.—U. S. Engineer Office, Jacksonville, Fla. Sealed proposals for dredging in channel from Clearwater Harbor to Tampa Bay, Fla., will be received at this office until 12 M. June 26, and then publicly opened. Information on application, Geo. R. Spalding, Captain, Engineers.

Drilling Machinery.—Davis Mine & Mill Co., Charles B. Ramsey, manager, Davis, Okla., will need core drill for testing.

Electric-light Plant.—Sealed proposals will be received by Mayor and Board of Aldermen of Tupelo, Miss., up to 2 P. M. June 16 for furnishing following machinery and materials in accordance with plans and specifications on file in office of C. E. Goodlet, City Clerk, and in office of consulting engineer (plans and specifications will be ready after June 2): Two Cross-compound condensing 4-valve or Corliss type engines, direct connected; 2 250 K. V. A. 3-phase 60-cycle 2400-volt 300 R. P. M. revolving-field engine-type generators, complete with field rheostat; motor-driven exciter and steam-driven exciter for above generators; generator voltage regulator; 125-light tungsten system of street lighting and 15-light metallic flame street-lighting system, complete with rectifier; 60-horse-power 2200-volt 3-phase 60-cycle 690 R. P. M. squirrel-cage induction motor, with chain drive; 5-horse-power 220-volt 3-phase 60-cycle 1730 R. P. M. induction motor, direct connected to centrifugal pump, to deliver 350 gallons of water per minute against 15 pounds pressure; 7 2½-kilowatt, 12 5-kilowatt, 7 7½-kilowatt and 8 10-kilowatt transformers; marble switchboard consisting of 8 panels; bids will also be received for materials for overhead pole line construction; certified check for 5 per cent. of total amount of bid; usual rights reserved; D. W. Robins, Mayor; R. C. Huston, consulting engineer, 1634 Exchange Bldg., Memphis, Tenn.

Electrical Machinery.—Tallhina Light & Power Co., O. P. Fullergren, president, Tallhina, Okla., wants prices on 50-horse-power boiler, 30-kilowatt 3-phase 2200-volt generator and 40-horse-power high-speed engine.

Electrical Machinery.—Lafayette Water and Light Plant, W. L. Eyres, superintendent, Lafayette, La., will want prices on three-phase generators and switchboard.

Electrical Machinery.—J. W. Cannon, Concord, N. C., wants 300-kilowatt generator, 40 cycles and several 40-cycle motors.

Electrical Machinery.—Boley Light & Power Co., Boley, Okla., wants 30-kilowatt generator; 60 cycle; 1100 volts.

Electrical Machinery.—Seafeld Engineering Co., Arcade Bldg., Philadelphia, Pa.,

is receiving bids on four 300-horse-power 200-pound superheat boilers; three 500-kilowatt 2300-volt turbines; three 300-kilowatt rotaries; cost about \$300,000; for plant at Helena, Ark.

Electrical Machinery.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on 50-kilowatt dynamo.

Electric-light Plant.—City of Edgfield, S. C., is ready to receive bids for construction of electric-light plant; W. H. Harling, clerk and treasurer.

Electric-light Plant.—See "Water-works."

Electric Wiring.—See "Building Materials."

Electric Wiring.—Sealed proposals in duplicate will be received until 2 P. M. June 17 for wiring and extension of electric-lighting system in buildings of Howard University, Washington, D. C., in accordance with specifications and drawings, copies of which may be obtained upon application to chief clerk of department; Carmel A. Thompson, assistant secretary.

Engine.—See "Electrical Machinery."

Engines.—Lafayette Water and Light Plant, W. L. Eyres, superintendent, Lafayette, La., will want prices on engines.

Engine.—O. R. Whitney, 39 Cortlandt St., New York, wants second-hand tandem compound Corliss condensing engine; to deliver about 275 horse-power under boiler pressure of 125 pounds steam, 90 R. P. M.; quick delivery. Give particulars and prices first mail.

Engine.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on 100-horse-power engine.

Engine Lathes.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., will open bids June 20 for eight engine lathes; schedule 3636; delivery navy-yard, Norfolk; for copies apply to navy pay office nearest navy-yard.

Engine.—See "Boiler and Engine."

Engine.—Mt. Gilead Cotton Oil Co., Mt. Gilead, N. C., wants second-hand Corliss engine; 80 to 100 horse-power; good condition.

Engines.—See "Bridge Builders."

Engines.—See "Water-power Information."

Evaporators.—See "Condensing and Evaporating Machinery."

Felt Machinery.—Standard Oilcloth Co., 320 Broadway, New York, wants addresses of makers of machinery for manufacturing felt from cotton; company can show sample of felt.

Fertilizer Machinery.—Samuel Davis, Clarksville, Va., wants fertilizer machinery.

Films.—Em. Rosenfeld, 97, Rue D'Aboukir, Paris, France, is interested (chiefly on commission) in prices on cinematograph films.

Flour Mill.—C. M. Stephens, Keyaville, Va., wants flour mill of 50 barrels capacity; immediate delivery.

Flue Lining.—Trustees Water-works and Improvement Bonds, W. M. Bostwick, Jr., chairman, Jacksonville, Fla., will receive bids until 3 P. M. June 5 for furnishing and placing Vitre Bestos lining and brick paving for flue and breechings to be erected under contract at new power station near Jacksonville; certified check not less than 5 per cent. of bid; bids to state any variations from specifications; form of contract, also plans and specifications, on file in office of board in Jacksonville and of Scofield Engineering Co., consulting engineer, Philadelphia, Pa.; additional copies of same may be had on application to engineers.

Galvanized Iron.—See "Iron and Steel, etc."

Gasoline Engine.—See "Brick Plant."

Gas Plant.—Town of Barton Heights, Va., invites bids until 8 P. M. May 9 for rights, privileges and franchises proposed to be granted for gas plant; bids for franchise to be accompanied by certified check for \$1000; L. T. Webster, Town Clerk.

Gear Cutter.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. June 6, and opened immediately thereafter, to furnish at navy-yard, Charleston, S. C., a gear cutter. Application for proposals should refer to schedule 3600. Blank proposals furnished upon application to navy pay office, Charleston, S. C., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Heating Plant.—Bids will be received by Board of Education, Union district, Marshall county, West Virginia, at office of architect, until noon June 6 for heating and ventilating proposed Sherrard school building. Plans and specifications are on file at office of Chas. D. McCarty, architect, Room 19 Reilly Bldg., Wheeling, W. Va., where they

may be examined and figured during office hours by those desiring to bid.

Heating Plant.—Greenbush Manufacturing Co., Greenbush, Va., wants prices on steam-heating plant.

Ice Machinery, etc.—Roseland Veneer & Package Co., Roseland, La., wants prices on equipment for small ice and refrigerating plant.

Implement Iron.—See "Iron and Steel, etc."

Iron and Steel, etc.—Raoul and Albert Engelhard, Calzo de Correio 300, Para, Brazil, are interested (commercially) in iron for manufacture of agricultural implements and elevators; galvanized sheet iron for building of houses, walls and roofs; asbestos-covered sheet iron for roofs and partition walls; iron for reinforcing cement construction; also all materials used in building reinforced cement structures; wants to correspond with manufacturers. Send catalogues, etc.

Laundry Machinery.—Crystal Ice Co., Keysville, Va., wants mangle for sheets.

Lead.—Sudlow, engineer for commission, Aiken, S. C., wants bids on supplying 60,000 pounds pig lead for caulking cast-iron pipe joints.

Leather and Imitation.—Em. Rosenfeld, 97, Rue D'Aboukir, Paris, France, is interested (principally on commission) in leather and leather imitation.

Levee Construction.—Bids will be received at office of Board of State Engineers, 213-215 New Orleans Court Bldg., New Orleans, La., until noon June 14 for construction of Jeter levee, Bossier parish, Red River, left bank, length 3700 feet, contents 48,500 cubic yards; south bank Loggy Bayou levee, Red River parish, contents 35,000 cubic yards.

Locomotive.—Grover C. Baney, Wilmington, N. C., wants small standard-gauge locomotive.

Machine Tools.—Eunice Carriage and Machine Shops, Eunice, La., wants prices on second-hand plate-bending roll to bend No. 3 gauge, 48 inches wide, taper boring lathe attachment, engine cylinder with chucking attachment for boring cylinders on lathe, center grinding attachment for lathe, and pistol ring for chucking rings and grinding after they are split and cut.

Machinery Supplies, etc.—Morell & Ewing, Elgin, Tex., want prices on machinery and automobile supplies.

Metal Ceiling.—Greenbush Manufacturing Co., Greenbush, Va., wants prices on metal ceiling.

Naval Stores Companies.—Dixie Clay Products Co., Will H. Fox, manager, Graysville, Tenn., wants addresses of Southern naval stores companies handling crude turpentine.

Naval Supplies.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. June 6, and opened immediately thereafter, to furnish at navy-yard, Washington, D. C., etc., a quantity of naval supplies, as follows: Schedule 3602, furnishing and installing metal pigeonholes; schedule 3606, coal; schedule 3618, coal; schedule 3614, fuel oil. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Naval Supplies.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. June 6, and opened immediately thereafter, to furnish at navy-yard, Norfolk, Va., etc., a quantity of naval supplies, as follows: Schedule 3599, engine lathe; schedule 3605, coal; schedule 3617, bronze rod, lead pipe; schedule 3618, paint cans, hardware; schedule 3620, lampblack; schedule 3621, water and steam gauges; schedule 3622, zinc boiler plates; schedule 3623, insulating tape. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to navy pay office, Norfolk, Va., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Oilcloth.—Em. Rosenfeld, 97, Rue D'Aboukir, Paris, France, is interested (chiefly on commission) in prices on oilcloth.

Paving.—Julien Smith, City Engineer, Selma, Ala., will receive bids until noon June 14 for laying about 5000 yards brick paving on concrete foundation, 2000 feet granite curbing, necessary storm sewers, inlets, etc.; specifications furnished on application; certified check \$500.

Paving.—City Clerk, Annapolis, Md., will receive bids until noon June 5 for paving 2d and Madison Sts. with bituminous macadam, grading, setting and resetting curbing and other incidental work as described in specifications; plans, profiles and cross-section on file in office of J. C. Little, City Engineer;

for specifications, proposal forms and other information apply to City Engineer.

Paving.—F. J. Von Zuben, Acting City Engineer, Fort Worth, Tex., will receive bids until 9 A. M. June 6 for paving Daggett Ave. from Summit to South Main St., containing 14,373,332 square yards, and 9th St. from Commerce to Harding St., containing 9680 square yards; will be paved with bitulithic, rock asphalt, macadam or vitrified brick; forms of proposal and specifications on file with City Engineer; certified check \$1000; J. H. Maddox, Commissioner Street and Public Property.

Paving.—Board of Affairs, Bluefield, W. Va., will receive bids until 7.30 P. M. June 16 for macadamizing Princeton Ave. East from east end of overhead bridge to corporate limits of city; work to be of crushed limestone and to be what is known as "water-bound macadam," 15 feet wide, 7½ feet on each side of center line as shown on map prepared by City Engineer and on file in his office; detailed plans and specifications prepared by City Engineer and on file in his office, and also in office of City Auditor; bids to include all costs for labor and material; S. Frazier Stowers, Mayor.

Paving.—Sealed proposals will be received until 7 P. M. June 5 by Board of Council, Maysville, Ky., for construction of macadam streets with bituminous binder and concrete curb as follows: West 3d St., from Wall to Lower St., 4000 square yards of street and 2000 linear feet concrete curb; Bridge and 2d Sts., from 3d St. to bridge over Limestone Creek, 2000 square yards of street and 700 linear feet curb; East 2d St., from bridge over Limestone Creek to Union St., 11,000 square yards of street and 700 linear feet curb; 4th St., from Market to Plum St., 5300 square yards of street and 2400 linear feet curb; West 3d St., from Maysville Manufacturing Co.'s plant to bridge over Beasley Creek, 1600 square yards of street and 1200 linear feet curb; work to be according to plans, specifications and profiles on file at Mayor's office; bidders permitted to bid on all or any part of work; bidders to accompany bids with certified check for sum equal to 5 per cent. of total bid; all bids addressed to City Clerk, care of City Engineer; further information may be obtained from the City Engineer; usual rights reserved; J. Wesley Lee, Mayor; J. M. Walker, engineer; W. J. Kirwin, clerk.

Paving.—Board of Public Affairs, Fort Smith, Ark., will receive bids until June 5 for construction of concrete sidewalks in front of lots 3 and 4, Lock 25, Fitzgerald Addition, North 15th St.; plans and specifications on file with Fagan Bourland, Mayor.

Paving.—H. A. Skeggs, Mayor, and City Council, Decatur, Ala., will receive bids until 8 P. M. June 6 for furnishing material and constructing certain asphalt macadam pavement, cement gutters and car-track pavement; plans and specifications on file in office of City Engineer; E. W. Collier, City Clerk.

Paving.—Hamilton County Road Commission, E. D. Bass, chairman, Chattanooga, Tenn., will receive sealed proposals until 1 P. M. June 15, and then opened, for construction of 32,000 square feet of pavement on Montgomery Ave., with 19,000 linear feet of curb and gutters; material to be selected by Road Commissioners, and will be either vitrified brick, bituminous concrete or bituminous macadam, with concrete curb and gutters; will construct 75,000 additional square yards of paving and 42,000 linear feet of curb and gutters; contract to be let later. Plans and specifications and blank form of proposal may be obtained at office of Road Commission, Chattanooga. Certified check for \$500 must accompany each proposal, paid to order of J. V. Williams, County Judge. Usual rights reserved.

Paving.—City of Sumter, S. C., will open bids noon June 12 for constructing 12,000 square yards of pavement on Main St. Information may be had from W. L. Lee, City Engineer.

Paving.—Mayor and Board of Aldermen, Knoxville, Tenn., will receive bids until noon June 2 for paving, curbing, guttering, grading, etc., North Central, Eleanor, 8th and Deery Sts. and Clinch Ave.; plans and specifications of City Engineer on file in office of W. P. Chandler, City Recorder, City Hall; bids to be accompanied by bid bonds in penal sum of 10 per cent. of cost of work.

Paving.—City of Wharton, Tex., will let contract June 19 to construct three miles of concrete sidewalks; J. G. Johnson, engineer in charge.

Peanut Machinery.—W. F. Smith Company, Fayetteville, N. C., wants machine to fill container with peanuts and wrap and seal it automatically.

Photographic Supplies.—See "Films."

Pipe.—United Well Works, J. R. Pennington, general manager, Stuttgart, Ark., wants 1500 feet eight-inch wrought-iron or steel pipe; not less than 28 pounds to foot; for artesian well at Blytheville, Ark.

Pipe.—Mace Springs Water Co., Bolivar, Pa., wants about 2000 feet 10-inch water pipe; cast iron, wood or other material; new or second-hand. Address J. B. Hammond.

Pipe.—Guedry Oil Co., Geo. E. Guedry, president, New Orleans, La., wants 1000 feet extra heavy black six-inch pipe; also 1000 feet four-inch heavy drill pipe.

Pipe-threading Machine.—Texas Supply Co., 513 Crockett St., Beaumont, Tex., wants pipe-threading machine; capacity up to four inches; prefers machine with motor attached and with alternating current power.

Plumbing.—See "Building Materials."

Printing Machine.—Follansbee Publishing Co., Harry Edwards, secretary, Follansbee, W. Va., wants prices on printing machine.

Producer-gas Engine.—See "Brick Plant."

Pulley.—Tamms Silica Co., Tamms, Ill., wants cast-iron split pulley; 8-foot diameter, 15-inch face, 8-inch bore; good condition.

Pumps.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on three steam pumps.

Pumps.—Lafayette Water and Light Plant, W. L. Eyres, superintendent, Lafayette, La., will want prices on pumps.

Pumps.—Bids will be received at office of City Water-works, Room 103 City Hall, Richmond, Va., until 4 P. M. June 11 for furnishing and erecting two centrifugal pumps, piping and water meters; also for two 200-horse-power electric motors, switchboard and wiring, as per plans and specifications on file in said office; certified check \$500; for plans, specifications and further information address E. E. Davis, superintendent water department.

Rails.—Grover C. Baney, Wilmington, N. C., wants five miles double-track 35-pound rails.

Refrigerating Machinery.—See "Ice Machinery, etc."

Road Construction.—Baltimore County Highways Commission, E. Stanton Bosley, secretary, Towson, Md., receives bids until noon June 15 for building section of State aid highway along Old Court Rd., between Quarry lane and Rockland, 2.01 miles; bids upon blank forms obtained at office of commission; certified check \$200; plans can be seen and forms of specifications and contract obtained at office of State Roads Commission, Union Trust Bldg., Charles and Fayette Sts., Baltimore, Md.

Road Construction.—Road Commission District No. 2 of Harrison county, V. A. Griffith, secretary, Gulfport, Miss., will receive bids until 10 A. M. June 7 for constructing 2.8 miles of gravel road and 15.1 miles of dirt roads; bids are to be separate for clearing and grubbing, for all remainder of work, except bridges, and for bridges; plans, profiles, specifications and details on file with Chancery Clerk and with secretary Road Commissioners; form for bids will be furnished by secretary.

Road Construction, etc.—Baltimore (Md.) Board of Awards will receive bids at office of J. Sewell Thomas, City Register, City Hall, until 11 A. M. June 7 for construction of roadway and paths, etc., connecting Druid Hill Park with Wyman Park; construction of roadway and paths in Wyman Park from Cedar Ave. bridge to main road of Wyman Park, north of United States Marine Hospital, including grading of roadways and slopes, scarifying Cedar Ave. bridge to Viaduct Ave.; construction of storm-water drains, concrete catch-basins, laying fiber conduit, construction of light post foundations, construction of concrete curb, construction of retaining walls, bitumen macadam work for paths and roads, etc.; plans and specifications obtainable at office of engineer of Board, Madison Ave. entrance to Druid Hill Park; certified check \$1000; William S. Manning, general superintendent of Park Commissioners.

Roof Raising.—Alexander Light Infantry, F. L. Slaymaker, captain, 313 King St., Alexandria, Va., invites bids for raising truss roof on armory building six feet.

Safe.—Youngsville Sugar Factory Co., Dr. R. O. Young, manager, Youngsville, La., wants second-hand iron safe.

Sausage and Bone Mill.—W. L. Bozeman, Leesburg, Fla., wants prices on combination sausage and bone mill, with gasoline power.

Saw.—Edw. N. Maul, Bay and Newnan Sts., Jacksonville, Fla., wants power hack saw. Send catalogue and price-list.

Saw.—Q. D. Sauls, Tylertown, Miss., wants second-hand small sash gang saw, with belt driver.

Saws.—Caddo Window Glass Co., August Boulenger, president, Shreveport, La., wants prices on rip saw and cut-off saw.

Sawmill.—T. H. Carrier, Butler, Tenn., wants short-log sawmill for cutting chair stock.

Sewer Construction.—T. C. Hughes, City Engineer, Tulsa, Okla., will receive bids until 5 P. M. June 5 for construction of sanitary lateral through blocks 86 and 96, original townsite, and block 23, Owen Addition, in sewer districts Nos. 21 and 8; plans, profiles and specifications on file with City Engineer; certified check 5 per cent. of bid.

Sewer Construction.—J. B. Rice, City Clerk, Dawson Springs, Ky., will receive bids until noon June 10 for constructing sewers, sanitary sewers and appurtenances; 3800 cubic yards earth excavation, 200 cubic yards rock excavation, 2600 feet 12-inch vitrified sewer pipe, 540 feet 10-inch, 1400 feet 9-inch, 3400 feet 8-inch pipe and 25 brick manholes; certified check \$500; plans and specifications on file with City Clerk, or copies may be had from W. A. McDonald, engineer, Central City, Ky., upon payment of \$5.

Sewer Construction.—Common Council, Williamson, W. Va., will receive bids until June 5 for constructing extension of Logan-street sewer, length 300 feet, and extension to main sewer on Second Ave. from First Ave. to Tug River, length 240 feet; bids will be received for concrete or brick construction, or for both; will also receive bids until same date for construction of sewer in alley along Norfolk & Western Railway right of way and building of lateral sewers in Peters St., East Fourth Ave., Hartley, Talbot and Ethel Sts.; sewer in Peters St. will be 5300 feet long; sewer will be 6, 8, 10, 12 and 15 inches in diameter; plans and specifications on file with N. H. Manakee, City Engineer, First National Bank Bldg.; bids will be received for work as whole or for each sewer separately; bidders to designate in bid kind and quality of material to be used; certified check \$50; A. C. Pinson, Mayor.

Sewing Machine.—E. H. Young, Galveston, Tex., wants automatic machine for sewing burlap bags 28 inches wide, 40 inches high; bags to hold 165 pounds cottonseed meal each.

Shoes.—Em. Rosenfeld, 97, Due D'Abourkir, Paris, France, is interested (chiefly on commission) in prices on shoes.

Soap Machinery.—E. O. Painter Fertilizer Co., Room 1001 Bissell Bldg., Jacksonville, Fla., wants addresses of manufacturers of soap-making machines; wants plodding machine.

Sulphate of Ammonia.—U. S. Engineer Office, 920 17th St. N. W., Washington, D. C. Sealed proposals for furnishing and delivering about 400 tons sulphate of alumina received until 12 M. June 20, and then publicly opened. Information on application. W. C. Langhitt, Lieutenant-Colonel, Engineers.

Tile Manufacturers, etc.—New Orleans Roofing and Metal Works, New Orleans, La., wants addresses of large manufacturers of tile and vitrified piping.

Tin Cans.—R. F. O'Brien, Fuller, Kans., wants addresses of manufacturers of small tin cans, polish boxes, etc.

Turbines.—See "Electrical Machinery."

Vault Door.—See "Bank Furniture, etc."

Vault Doors.—J. S. Starr, Rock Hill, S. C., wants prices on single vault doors.

Vitrified Pipe.—See "Tile Manufacturers, etc."

Washing Machine.—Youngsville Sugar Factory Co., Dr. R. O. Young, manager, Youngsville, La., will in fall need filter press cloth-washing machine.

Wood Alcohol.—Trades Press Service, Box 1003, New York, wants addresses of Southern producers of wood alcohol.

Woodworking Machinery.—See "Box Machinery."

Woodworking Machinery.—Gulf Line Railway Co., W. T. Hargrett, general superintendent, Sylvester, Ga., wants prices on light woodworking machinery.

Water-power Information.—W. A. Carver, Rougemont, N. C., wants "Book of Instruction" on measuring water-power of rivers and development for electric power.

Water-works.—H. Galloway, recorder, England, Ark., will receive bids until July 1 for 30-year franchise for deep-well water system and electric-light plant; population, 1600; 75 business houses; 400 residences.

Water-works.—Separate proposals will be entertained at Fort Smith, Ark., for materials and construction of water-works district No. 2, Meigs, Ark., as follows: For 750

tons cast-iron pipe and special castings; 71 1 to 12-inch valves, 27 hydrants, and for laying 40,000 feet of 4 to 12-inch mains; proposal blanks and specifications may be had by addressing engineers, Winters & Dove, 810 First National Bank Bldg., Fort Smith, Ark.; deposit of \$5 will be required for plans, etc., of pipe laying; contract will be let in about 30 days.

Water-works Equipment.—J. E. Emmert, Mayor, Tallahassee, Okla., wants prices on 500-gallon-per-minute duplex steam pump.

100-horse-power boiler, boiler-feed pump and 6.4-inch cast-iron pipe.

Water-works Materials.—Water-works Department, M. E. Jones, superintendent, Gadsden, Ala., will receive bids until noon June 21 for approximately 900 tons of water main, 20 tons of specials, 20 tons lead, 20 valves and 26 hydrants; usual rights reserved.

Windows.—Greenbush Manufacturing Co., Greenbush, Va., wants prices on stained-glass windows.

Woodworking Machinery.—See "Saw."

INDUSTRIAL NEWS OF INTEREST

An Extensive Building Contract.

The Cincinnati Hospital, located at Cincinnati and comprising a group of 18 buildings to cost \$1,000,000, is to be built by the Westlake Construction Co. of St. Louis, which has just been awarded the contract.

New Bank Building.

The Selden-Breck Construction Co., St. Louis, has received the contract for building a fireproof bank building at East St. Louis, Ill., for the Southern Illinois National Bank. The architects are Mauran & Russell, St. Louis. The cost will be approximately \$100,000.

The "Duke" Force-Feed Lubricator.

The Success Novelty Co., 618 E. Cary St., Richmond, Va., has taken over all of the patterns of the Standard Force Feed Lubricator Co. of Rochester, N. Y., and is now manufacturing a high-class force-feed lubricator called the "Duke." The company has issued a folder illustrating and describing the lubricator.

Cast Iron and Brass Goods.

The factory facilities of the H. W. Clark Company, Mattoon, Ill., will be considerably enlarged in order to increase the manufacture of its line of cast iron and brass goods and appliances for water-works systems. Incorporation was effected May 9, and increased factory facilities will be provided for as soon as practicable.

Improvements at Kearney, Neb.

The city of Kearney, Neb., has voted \$40,000 bonds for an addition to the Longfellow High School building. The new building will be of pressed brick and stone. The Kearney Commercial Club is interested in attracting manufacturing companies, and states that those desiring a good location will find it to their interest to communicate with the Commercial Club.

A \$26,000 Contract for Boilers.

The Board of Public Improvements of St. Louis has made a contract with the Toledo-Planner Company, Toledo, O., for boilers to be used for heating the new city hall, the Municipal Courts building and the jail. These boilers will also furnish power for the lighting plant for these buildings. The contract price is \$26,000.

Birmingham Electrical Installations.

The electrical installation for the building now being erected for the Birmingham (Ala.) Ledger will be made by the Wilcox Electric Co. of that city. This will be an installation of considerable importance and will add to the already notable list of installations by this company, in which are included those for the Miles College, the Carnegie Library, U. S. Weather Bureau, Maccabee Temple, Jemison Bldg., and many others.

Well-Drilling Contracts.

The Hughes Specialty Well Drilling Co., Charleston, S. C., has been awarded and is working on the following contracts: Wells for the State Hospital, Columbia, S. C., the number depending on conditions found, one to four eight-inch 500-foot wells; for the city of Bonz, Ala., one 10-inch 1000-foot well; for Savannah Electric Co., Savannah, Ga., one eight-inch 400-foot well, and the same for J. B. McCrary Company for the town of Sylvania, Ga.

Sprague Electric Co. Announcement.

On June 1 the Sprague Electric Co. was merged with the General Electric Co. of Schenectady, N. Y. Its business will be conducted under the name Sprague Electric Works of General Electric Co. The manufacture and sale of lines of apparatus and supplies heretofore produced by the Sprague Electric Co. will be continued by the Sprague Electric Works of General Electric Co., under the same organization, with D. C. Durland as general manager, and with the assurance that the characteristic quality of product and efficiency of service to its

customers will be continued. All correspondence should be sent to Sprague Electric Works. The offices of the Sprague Electric Works will be continued as heretofore, with main offices at 527-531 W. 34th St., New York and branch offices in many principal cities.

Enlarging Plant for Making Concrete Mixers.

In order to properly take care of its rapidly increasing concrete-mixer business the Standard Scale & Supply Co. of Pittsburgh has recently found it necessary to increase the size of its large plant at Beaver Falls, Pa. The addition consists of a steel fireproof building 70x50 feet. The machinery has already been purchased and installed. This company manufactures the well-known "Eclipse" concrete mixer.

Removal of Concrete Building.

The New Orleans Levee Board has asked for bids to be submitted by June 15 for the removal of the six-story building of the H. T. Lawler Milling & Trading Co. in that city. This building is 85 feet high and occupies an area of 70x127 feet; is built of reinforced concrete, and is to be cleared away by August 31. Bidders' blanks and any information desired may be obtained by applying to the office of the Levee Board, 201 Court Bldg., New Orleans.

Contracts for Structural Work.

Contracts have recently been closed by the Norfolk Iron and Wire Works, Inc., Norfolk, Va., for the steel work of the U. S. postoffice substation at Richmond, Va.; the ornamental iron work, Richmond College of Medicine, and the steel work for a public school building in Richmond. The company was also interested in the supply of material for the Y. M. C. A., Savannah. It makes a specialty of wire, ornamental and structural iron and steel work for buildings of all kinds, and reports a satisfactory business.

Large Reinforced Concrete Pier.

The Robbins-Ripley Company, 59 Church St., New York city, has been awarded the contract for constructing a large concrete pier at Ellis Island, United States Immigrant Station, New York harbor. This pier is to be built entirely of reinforced concrete, the piling being 18 inches square and about 30 feet long. Concrete will be composed of one part concrete, two parts sand, four parts gravel and stone, in which an improved waterproofing will be used. The beams, girders and decks are also of reinforced concrete.

Motor Cars in Alaska.

The use of gasoline motor cars on railroads in Alaska has proved a success. About a year ago the Alaska Northern Railroad purchased a Fairbanks-Morse passenger motor car which gave such good service that an additional one has been ordered. This car has recently been shipped from Seattle by the first passenger steamer of the season to Alaska. It is a 35-passenger car, with separate compartments for passengers, light express, baggage, etc. A 16-foot wheel base enables the car to take extremely sharp curves. The motive power is supplied by a four-cycle gasoline engine mounted on the truck.

Small Direct-Current Meters.

The meet the growing demand for small indicating meters for battery-charging installation, small isolated plants, Cooper Hewitt rectifier outfits and similar small installations, the Westinghouse Electric & Manufacturing Co. of Pittsburgh has improved on its type L ammeters and voltmeters to such an extent that they are claimed to be the equal of many higher-priced instruments now on the market. These meters are five inches in diameter, which makes them very convenient for use on small panels. The movement of the meters is similar to that of larger, high-grade meters made by the Westinghouse Company. The meter scales are hand calibrated and

the cases are of molded hard rubber, giving the meters a finished appearance. Ammeters up to 500 amperes and voltmeters up to 300 volts are listed in the company's catalogue.

Important Elevator Contracts.

The James H. Curran Elevator Co., Cincinnati, has recently secured several important elevator contracts, including three for the Haynes Automobile Co., Kokomo, Ind.; one for Milton C. Smith Automobile Co., South Bend, Ind.; one for the Meredith Mills, Columbus, Ga.; one for J. G. Squibbs & Co., Lawrenceburg, Ind.; one for the Logan Hardware Co., Logan, W. Va.; one for the Hudepohl Brewing Co., Cincinnati, and two for the Niles Tool Works, Hamilton, O. These are all freight elevators of heavy type. The one for Columbus, Ga., is electric and those for Hamilton, O., are the plunger type.

To Manufacture Kerr Turbines.

The Kerr Turbine Co., Wellsville, N. Y., has been reorganized and its capital increased \$125,000. The company is now controlled by F. P. Merrill of Hornell, N. Y., and P. B. Hanks of Wellsville, who as trustees have directed the affairs of this company for the past two and one-half years. J. L. Moore, formerly a designer with the Westinghouse Electric & Manufacturing Co., and later in the engineering department of the Santa Fe Railroad, is chief engineer. The plant will be enlarged, a new machine shop being already under construction. The new company intends to incorporate into the Kerr turbine design changes which are based upon two years' experience and which it is claimed will improve the steam economy on all sizes by 15 or 20 per cent.

German Belt Industry in America.

For a number of years Victor-Balata belting has been imported from Germany. The Victor-Balata & Textile Belting Co. has recently been organized jointly by German representatives and the American interests for the purpose of manufacturing this belting in the United States. The main office of the company is at 51 Beekman St., New York; factories at Easton, Pa., and branch office at 172 N. Franklin St., Chicago. A review of the history of Victor-Balata belting is given in The Phoenix for May by the New York Leather Belting Co., which has for a number of years imported the Victor-Balata belting. The composition of the newly-organized company assures the continued high quality of this product with the advantage of home manufacture.

Refrigerating Machinery to the South.

Among the recent sales to the South of the Frick Company, Waynesboro, Pa., of ice-making and refrigerating equipment are the following: P. R. McCrary, consulting engineer, Washington, D. C., a 10-ton ice-making machine to be installed for the Fort Lauderdale Ice Co., Fort Lauderdale, Fla.; Sanitary Ice Co., Clarksburg, W. Va., 20-ton freezing system, 20-ton distilling system, parts of boiler system and repairing plant damaged by fire; E. I. du Pont de Nemours Powder Co., Wilmington, Del., 20-ton refrigerating machine for use in powder factory at Webb City, Mo.; the Arcade Company, Washington, D. C., 14-ton improved flooded freezing system and 14-ton distilling system for the use in market; Chaffee Ice & Cold Storage Co., Chaffee, Mo., 15-ton ice plant, with improved flooded freezing system, distilling system, boiler system and brine piping for cold storage; Seminole Power & Ice Co., Fort Myers, Fla., changing freezing system to improved flooded freezing system. Other important installations were sold to various parts of the country.

Steam Pump and Meter Exhibit.

Among the interesting exhibits at the Architecture and Building Show, in the Grand Central Palace, New York, May 19 to 27, was that of the combined exhibit of the Henry R. Worthington, Blake & Knowles Steam Pump Works, the Laidlaw-Dunn-Gordon Company and the Deane Steam Pump Co., subsidiary companies of the International Steam Pump Co. of 115 Broadway, New York. These companies had operating exhibits near the center of the exhibit space. The patent liquid weigher, a recent product of Henry R. Worthington, attracted attention, as it was actively engaged in recording on an automatic counter the volume and weight of water to be measured. This weigher is adapted to the accurate measuring and recording by weight and volume the flow of hot water, chemicals, oils and other liquids that cannot be conveniently measured in other ways. Examples of different types of Worthington pumps, meters, etc., and the Blake & Knowles open-feed water heater for steam boilers, and motor-driven

Knowles triplex power pumps were exhibited.

Important Railroad Material Sales.

In addition to a number of orders for 50 and 100-ton shipments, reports from the Philadelphia office of the George M. Newhall Engineering Co., 136 S. 4th St., note sales of 200 tons of relaying 60-pound steel rails to the Gulf Line Railway Co., Sylvester, Ga.; 1000 tons 70-pound relaying steel rails to the Southern Cambria Railroad Co., Ebensburg, Pa.; 400 tons of the same to the Grafton Traction Co., Grafton, W. Va.; 250 tons to the National Limestone Co., Martinsburg, W. Va.; 700 tons 60-pound relaying steel rails to the T. A. Gillespie Company, Newark; 150 tons of same to Curtis & Shumway, Slatington, Pa.; 200 tons 60-pound rails to R. C. Hoffman & Co., Baltimore, and 200 tons of 52-pound relaying steel rails to A. L. Derry & Co., Scranton, Pa. The several lines of construction material and products handled by the Newhall company are now represented in the branch office recently opened at 59 Church St., New York. These include the locomotive and wrecking cranes made at the Industrial Works, Bay City, Mich. The company reports that the New York office has already secured orders for two large wrecking cranes and a locomotive crane from the Seaboard Air Line Railway Co., and for a locomotive crane from a Canadian structural steel works company.

TRADE LITERATURE.

To Contract for Painting.

The Savannah Roof & Stack Painting Co. has been organized for the purpose of accepting contracts for painting metal and composition roofs, stacks, etc. Its manager is A. L. Gorley, with offices in Room 22 of the Citizens' Trust Bldg., Savannah, Ga.

An Improved Vacation Schedule.

The improved vacation schedule prepared last year by the Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn., was received with so much favor and appreciation that the company has issued a similar form this year. It is adapted to the months of May to October, inclusive, and is distributed free to those having business relations with the company.

Endurance of "Diamond" Tires.

A booklet has been issued by the Diamond Rubber Co., Akron, O., containing statements of motorists from every State and territory as to the endurance of "Diamond" tires, representing 149 cities and 51 different makes of automobiles. The total mileage made by the "Diamond" tire users quoted is 1,757,228 miles. The average mileage of all tires as quoted in the booklet is 8100 miles. This booklet will be sent free on request to the company.

Cement Tile Machinery.

The Cement Tile Machinery Co., Waterloo, Ia., has issued a catalogue containing full information on the subject of tile machinery, handling cars, dump cars, hoisting engines, tubular boilers, crushers, tanks, molds, etc. Special attention is given the Schenk cement tile machine, Schenk packer, the National tile machine for making tile of large sizes, the "Easy" tile and pipe molds, perfection concrete mixers, and S. & S. revolving sand screens. Peerless brick machines, post molds, etc., are described, and illustrations with descriptions of all the equipments are given.

Catalogue of Engineering Specialties.

The 330-page catalogue No. 10 of the Wm. Powell Company, Cincinnati, contains a list of the check valves, lubricators, throttle valves, sight-feed oil cups, grease cups, steam and water gauges, air valves, cylinder cocks, brass unions, expansion joints and various other specialties manufactured by this company. It also contains descriptions and illustrations of each type and table of dimensions. It is stated that the Powell steam engineering specialties are distributed from all the large trade centers of the world.

Automatic Fire Sprinklers.

The life hazard of fireproof buildings as exemplified in the Asch Building fire in New York is extensively treated in the Automatic Sprinkler Bulletin, published by the General Fire Extinguisher Co., 1 Liberty St., New York. The consensus of opinion as expressed in this bulletin, deduced from the statements of fire-insurance experts, fire-department officials and others, is that the automatic sprinkler goes far toward solving the problem of fire prevention by attacking the fire in its incipency and extinguishing it, or holding it in check until the arrival of the fire fighters. Another fact pointed out in the bulletin is that the fire-insurance com-

panies really pay for the sprinkler system, since the cut in insurance rates, sometimes as much as 45 per cent., in a few years pays for the entire cost of installation. The Grinnell automatic sprinkler is supplied by the General Fire Extinguisher Co., and it is claimed to have operated successfully in all parts of the civilized world during the past 25 years in over 14,000 fires.

"Mazda" Lamps with Drawn Wire Filament.

An important improvement in the "Mazda" incandescent lamp has been brought about by the recent perfection of a process permitting the use of drawn tungsten wire for the filament. The new construction is said to greatly diminish fragility. The engineering department of the National Electric Lamp Association has issued bulletin 13A, treating of these new forms of "Mazda" multiple lamps. They are made for 100-125 volts and 200-250 volts, 25 to 500 watts. Copies of this bulletin will be supplied free on request to the Engineering Department, National Electric Lamp Association, 441 Hough Ave., Cleveland, O.

Motors for Rolling Mill.

The shocks and jars which motors must withstand in driving rolling-mill machinery are so heavy and overloads are so sudden that special forms of motors are required for the work. In addition, the motor must be fully enclosed and amply designed to withstand the high temperature to which it is subjected. Bulletin No. 128, recently issued by the Crocker-Wheeler Company, Amper, N. J., treats particularly of this line of work. The bulletin describes and illustrates the form "W" motor in sizes up to 200 horsepower. It also contains illustrations of several plants in which these motors are operated.

Clearance in Ammonia Compressors.

The importance of the subject of clearance in ammonia compressors as a matter of safety and efficiency has induced the De La Vergne Machine Co., foot of East 138th St., New York, to issue a special bulletin, No. 110, treating of this subject. Descriptions and illustrations of the De La Vergne horizontal safety compressors are shown and the results of tests are tabulated. A pamphlet is attached to this bulletin containing a theoretical and scientific treatment of the subject of clearance in ammonia compressors by V. R. H. Green, in which he also submits deductions from careful experiments made in the past year.

Mill Supplies and Shop Tools.

A folder for distribution to mill and machine-shop people has been published by the Tennent Supply Co., Spartanburg, S. C., which indicates the extent and quality of supplies and tools handled by this firm. Among the names of manufacturers represented are the Detroit Graphite Co. of Detroit and Atlanta, cottage colors and graphite paints; the Lodge & Shipley Machine Tool Co., Cincinnati, lathes, etc.; Charlotte Leather Belting Co., Charlotte, N. C. Among the articles listed in this folder are Balata belting, belt dressing; air, steam and fire hose; oil filters, prism glass, travelers, harness and reeds, bobbins, lug and loom straps, etc. A full line of mill supplies and machine-shop tools is carried.

Fairbanks Scotch Marine Boiler.

A folder describing Fairbanks boilers for use with steam shovels and dredges has been issued by the Fairbanks Steam Shovel Co., Marion, O. The boiler is illustrated and described and its advantages of reliability and economy stated. Several letters of commendation referring to its economy and long use without repairs are included. It is said that these boilers are made in conformity with the rules of the Hartford Steam Boiler Inspection & Insurance Co. of Hartford, and that they are given severe hydrostatic and steam-pressure tests before leaving the factory.

Handy Agricultural Pump.

A pump which has been designed especially to pump water at small expense at any time when wanted is the Fairbanks-Morse "Eclipse" pumper. It is independent of wind or weather and will pump from the deepest wells, and will, it is claimed, pump as much water as a 10-foot windmill running in a 30-mile wind. Power for this pump is furnished by a small gasoline engine. It may be installed for small wells or may be a part of a water-works system. Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, have issued catalogue No. 76, describing and illustrating this "Eclipse Pumper." It is offered at a flat rate and sold preferably only through dealers. The gasoline engine is de-

tachable and may be used for many purposes requiring power.

Bulletins of Fort Wayne Electric Works.

Recent publications for distribution by the Fort Wayne Electric Works, Fort Wayne, Ind., include bulletins Nos. 1127, 1128, 1129 and instruction book No. 3048. Bulletin 1127 treats of direct-current grinders and buffers, with descriptions, illustrations and dimension drawings of the Northern type grinders and buffers. Bulletin 1128 treats in a similar way multiphase induction motors of various forms and types. Bulletin 1129 treats of multiphase induction watt-hour meters, type K-3. Instruction book 3048 supersedes No. 3045 and treats of the type A form A oil transformers. Description of this transformer, with numerous illustrations and instructions for installing and handling, are contained in it.

"Hy-Rib" Steel Sheathing and Laths.

The various applications of "Hy-Rib" steel sheathing and laths are indicated in a recent catalogue by the Trussed Concrete Steel Co., Detroit, Mich. "Hy-Rib" is one of the Kahn system products, the uses for which are found in every field of building operation, construction work of various kinds, including floors, roofs, walls, partitions, ceilings and furring. Curved "Hy-Rib" is used for arched floors, culverts, conduits, sewers, silos, tanks, reservoirs and tunnels. Descriptions and numerous illustrations of actual work are included in this catalogue. It is stated that the Kahn system reinforced concrete is successfully used in over 5000 important structures in the various forms of Kahn trussed bars, rib bars, column hooping, rib metal and "Hy-Rib."

Crane and Hoist Motors.

Every shop superintendent knows that his traveling cranes are the very arteries of his shop system. He appreciates that any failure here must shortly result in at least partial failure of the entire shop. Any weakness in the design of the cranes or hoists is a constant menace to the operation and consequently to the progress of all work in the shop. Too much care cannot be exercised, therefore, in selecting this most important piece of shop apparatus. Bulletin No. 123 recently issued by the Crocker-Wheeler Company, Amper, N. J., has much in it that should interest everyone who is in any way responsible for the installation or operation of electric cranes. This bulletin is illustrated with half-tone engravings which show many interesting applications of electric motors to cranes and hoists under different conditions.

"The Mason Builder."

A monthly publication for those interested in mason's building materials, issued by the Security Cement & Lime Co., Equitable Bldg., Baltimore, with the appropriate name, "The Mason Builder," will be distributed free, except in the Middle Western States, where the subscription rate is 50 cents per year. It is stated that no advertising will be accepted, and the publication is to be the contribution of the company towards advancement of the subject of the proper choice and use of mason's building materials. The information contained will be given in non-technical language. Copies will be mailed on request received direct from those who desire it for themselves, or from dealers, contractors and others who request that copies be sent to individuals by whom they feel it will be read and appreciated.

Cement Blocks for Lining Wells.

A patented form of concrete blocks for lining wells is fully described and illustrated in the pamphlet issued by the patentee, James F. Syze, Yorktown Heights, N. Y. These blocks are made in segmental sections of size to suit the well which is being dug. The particular advantage of this lining lies in the fact that it can be put in place as the well is being dug, which prevents caving in. It is especially adapted for sinking wells, shafts, etc., in soft or sandy earth. The patentee has patterns for seven different sizes of forms for the making of the blocks in Peekskill, N. Y., from which point he furnishes the patterns for purchasers of territorial rights. The pamphlet gives the dimensions of these patterns. Correspondence relating to the purchase of town, county or State rights is invited.

Detroit Steel Products Co.

A large illustration of the modern plant of the Hudson Motor Car Co., Detroit, showing the great number of "Detroit-Fenestra" metal windows used in construction of that building, is given in the monthly publication, "Detroit-Fenestra." The purpose of the pub-

Heating is to inform factory owners, managers and builders of the economic importance of daylight and ventilation. It is stated that millions of feet of "Detroit-Fenestra" have been installed during the past three years, notable users being the United States Government, several great railways, the United States Steel Corporation and many representative manufacturers. "Fenestra" standard steel window units are always carried in stock so that immediate shipments can be made. A list of more than 100 firms which have installed "Fenestra" windows in their establishments is included in this edition of the "Detroit-Fenestra" magazine.

Isolated Electric Lighting Plants.

The advantages of electricity for illuminating purposes as compared with all other illuminating methods are so great that any system that makes it possible for dwellings and small factories away from central power stations to have electric lights is necessarily a boon to the public. The possibilities of isolated electric-lighting plants for such purposes is interestingly presented in a booklet issued by the Electric Storage Battery Co., Philadelphia, containing commendatory letters from users of electric lights in places remote from regular electric systems, and shows in a convincing way the value of the individual electric-light units of which the storage battery forms an important part. A large percentage of these letters are from satisfied users of the storage battery and gasoline-engine unit in the South. The plants referred to consist of a gas engine and dynamo to generate the electricity and a storage battery of "Chloride Accumulators" to store it. It is only necessary to run the engine a few hours occasionally to charge the batteries. The lights are available for use at any time. The current may also be used for operating electric fans. In cases where a gasoline engine is already installed it may usually be used to run the dynamo. These testimonial letters give an accurate idea of the simplicity and reliability of the unit when installed. It is estimated that the running expense for gasoline is about one cent for three lights for eight hours. The engine can be used for various purposes requiring power when not charging the batteries. Complete plans and specifications will be furnished to cover every condition. The pamphlet is entitled "A Book Full of Satisfaction," and will be mailed on request.

The 1910 Agricultural Yearbook.

The seventeenth volume (1910) of the Yearbook will soon be issued by the United States Department of Agriculture. In appearance and make-up it differs but little from its predecessors; it contains 28 articles, 49 full-page illustrations, of which eight are colored, and 31 text figures. The Fourteenth Annual Report of the secretary for the fiscal year ended June 30, 1910, occupies the first 156 pages, and gives the "general report of the operations of the department," which, under the law, must form a part of the volume. This report, supplemented by the statistical matter found in the appendix, gives a more complete and comprehensive summary of agricultural conditions in the United States than can be found in any other single publication.

The next 320 pages, divided between 28 articles contributed by many members of the scientific force of the department, contain data upon many of the important questions now prominent in the public eye and equally vital to the agricultural and urban population, both as producers and consumers of the foodstuff of the nation.

The importance of the forests to the residents of the country and the prominence of that subject in department work is reflected in four papers, namely, the management of second-growth sprout forest, progress in saving forest waste, fire prevention and control on the national forests and injuries to forests and forest products by round-headed borers.

Settlers in many parts of the West will be interested in the two papers relating to the agricultural duty of water and mountain snowfall observations and evaporation investigations in the United States,

while everyone will be interested in the two articles, one on the progress and present status of the good-roads movement in the United States and the other describing the use of bituminous dust preventives and road binders.

Those engaged in animal husbandry will find the discussion of some of the more important ticks of the United States most timely, and the paper on the eradication of cattle tuberculosis in the District of Columbia will not only engage the attention of those directly benefited by that accomplishment, but will encourage other communities to renewed efforts for greater success in the same line. Grading of cream and the effect of the present method of handling eggs on the industry and product are two more papers which to dairy-men and poultry-raisers will be valuable.

That the general farmer, the fruit-grower, the trucker and the grower of special crops hold a deservedly large space in the thought and activities of the department is demonstrated by the nine papers on supply and wages of farm labor, nitrogen-gathering plants, insect enemies of tobacco in the United States, increased yields of corn from hybrid seed, the utilization of crop plants in paper-making, co-operation in the handling and marketing of fruit, precooling of fruit, camphor cultivation in the United States and the illustrated article on promising new fruits of the year 1910.

The department does not leave the farm product as soon as produced, but as its destiny is consumption, articles dealing with the proper, best and most economical use of farm products as food for man are furnished on cheese and other substitutes for meat in the diet, the respiration calorimeter and the results of experiments with it, and the game market of today.

As showing what the department is doing to further progressiveness in the farming communities and to encourage rural education and the instruction of agricultural courses in country schools, the article entitled community work in the rural high school will be of interest and value.

Articles of peculiar interest to dwellers in the larger cities are one on the value of the shellfish industry and the protection of oysters from sewage contamination, and one on the inspection of imported food and drug products.

The migratory movement of birds in relation to the weather, review of weather conditions of the year 1910 and seedtime and harvest, statistics as to the organization and work of the United States Department of Agriculture, the State Departments and the Agricultural Experiment Stations in the States complete the new Yearbook.

The volume is distributed principally by Senators, Representatives and Delegates in Congress, the department's quota being reserved for its volunteer correspondents.

The Texas Commercial Secretaries' Association has begun a campaign to induce the investment of \$1,000,000,000 in factories in Texas in 1912.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,
Baltimore, Md., May 31.

The Baltimore stock market was moderately active during the past week. In the

trading United Railways common sold at 18 1/4 to 18 3/4; do. incomes, 65 1/4 to 65 3/4; do. funding 5s, 88 to 87 1/4, with last sale at 87 3/4; do. do. scrip, 88 1/4 to 90; United 4s, 85 1/2 to 84 1/4; Consolidated Gas, Electric Light & Power common, 91 1/4 to 94; do. preferred, 99 1/4 to 100; do. 4 1/2s, 87 1/2 to 87 3/4; do. notes, 100; Consolidated Gas 5s, 108 1/4 to 108 3/4; do. 4 1/2s, 97 1/2 to 97 1/2; Seaboard Air Line common, 26 to 26 1/4; Seaboard Company common, 27 1/2 to 27 1/4; do. first preferred, 87 to 87 1/4; do. second preferred, 59 1/4 to 60 1/4; Seaboard 4s, stamped, 87 1/2 to 87 3/4; do. adjustment 5s, 79 1/2; Consolidated Cotton Duck preferred, 17; Mt. Vernon-Woodberry Cotton Duck 5s, 76 1/2 to 75 1/2; G. B. S. Brewing incomes, 5 1/2 to 5; do. 4s, 42 1/2 to 42 1/4.

Bank stock sold as follows: German, 107 1/2 to 109; Merchants', 192; Mechanics', 29; Western, 41 1/2; Farmers and Merchants', 52; Marine, 43 1/2.

Maryland Trust was dealt in from 86 to 90 1/2; do. preferred, 116; United States Fidelity, 161 1/4 to 162; Continental Trust, 228; Mercantile Trust, 148 1/2; American Bonding, 79; Baltimore Trust, 169; Maryland Casualty, 88 1/2.

Other securities were traded in thus: Atlantic Coast Line of Connecticut, 245; Atlantic Coast Line Railroad, 127 1/4; do. consolidated 4s, 95 1/4; do. convertible debenture 4s, 98 1/4 to 98; Alabama Consolidated Coal & Iron common, 40; do. 5s, 86 1/2 to 86 1/4; Baltimore City 4s, 1058, 102 1/4; do. do. 1901, 102 1/4; do. 3 1/2s, 1940, 93 1/2; do. do. 1930, 94; do. do. 1928, 35; Consolidation Coal, 103 1/2 to 103; Coal & Iron Railway 5s, 102 1/4 to 102; Fairmont & Clarksburg Traction 5s, 100 1/4 to 100 1/4; Norfolk & Atlantic Terminal 5s, 93 to 93 1/4; Augusta & Aiken common, 24; do. preferred, 72; Chicago Railways 5s, 99 3/4; Houston Oil common, 8 to 8 1/4; do. preferred, 58 1/4 to 59 1/4; Norfolk Railway & Light 5s, 100 to 99 1/4; Virginia Electric Railway & Development 5s, 104 1/4; West Penn Traction 5s, 97 1/2; Macon, Dublin & Savannah 5s, 98 1/4; Anacostia & Potomac 5s, 101 1/4; Baltimore Electric 5s, stamped, 95 1/4; Charleston Electric & Railway refunding 5s, 100; Carolina Central 4s, 93 to 93 1/4; Georgia & Alabama consolidated 5s, 105 1/4 to 105 1/4; Jamison Coal & Coke, George's Creek 5s, 94 1/2; City & Suburban (Baltimore) 5s, 105 1/2; Maryland Steel 5s, 102; Baltimore, Sparrows Point & Chesapeake 4 1/2s, 97; Chicago & Eastern Illinois refunding and improvement 4s, 82; Northern Central Railway stock, 127; Baltimore Electric preferred, 42 to 41 1/4; Maryland Electric 5s, 98 1/4 to 99 1/4; Canton Company, Baltimore, 119 to 120; New Jersey Central Traction 5s, 1954, 92 1/2; Maryland 3 1/2s, 1926, 95 1/2; Georgia, Carolina & Northern 5s, 105 1/4; Atlanta Consolidated Street Railway 5s, 105; German Fire Insurance, Baltimore, 17 1/2; Newport News & Old Point 5s, 94; Fairmont Coal 5s, 97; Western Maryland 4s, 87 1/4; Atlantic Coast Line of Connecticut 5s, certificates, 104 1/4; Virginia Century, 85 1/4 to 86; Milwaukee Refunding 4 1/2s, 93.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended May 31, 1911.

Railroad Stocks.	Par.	Bid.	Asked
Atlantic Coast Line.....	100	126 1/2	128 1/4
Atlantic Coast of Conn.....	100	240	250
Charleston Consolidated.....	50	34	...
Fairmont & Clarks, Trac. Com.....	100	40	...
Maryland & Pennsylvania.....	100	19	...
Norfolk Railway & Light.....	25	25 1/2	...
Norfolk & Ports, Trac., new.....	100	...	54
Seaboard Co. Common.....	100	27	27 1/2
Seaboard Co. 1st Pfd.....	100	86	88
Seaboard Co. 2d Pfd.....	100	60	60 1/2
United Ry. & Elec. Co.....	50	18 1/2	18 3/4

Bank Stocks.

Bank of Baltimore.....	100	163	165
Bank of Commerce.....	15	31 1/4	...
Citizens.....	100	220	221 1/2
Producers & Mechanics.....	100	220	221 1/2
Exchange.....	100	163 1/4	...
Farmers & Merchants.....	40	52	53
German.....	100	107 1/2	...
Howard.....	10	12 1/2	...

Marine.....	30	43 1/2	...
Mechanics.....	10	29	30
Merchants.....	100	191	192
Old Town.....	10	13 1/2	...
Union.....	100	135	140
Western.....	30	41 1/2	42 1/4

Trust, Fidelity and Casualty Stocks.

American Bonding.....	25	...	79 1/2
Baltimore Trust.....	100	168	...
Continental Trust.....	100	...	228
Fidelity & Deposit.....	50	151	152
Fidelity Trust.....	100	223	...
Maryland Trust.....	100	89	91
Maryland Trust Pfd.....	100	116	118
Mercantile Trust & Deposit.....	50	148	...
U. S. Fidelity & Guaranty.....	100	162	164

Miscellaneous Stocks.

Ala. Con. Coal & Iron.....	100	40	43
Ala. Con. Coal & Iron Pfd.....	100	70	72 1/2
Con. Cotton Duck Common.....	50	2 1/2	4 1/2
Con. Cotton Duck Pfd.....	50	17	...
Con. Gas, Elec. Lt. & P. Com.....	100	93 1/2	93 1/2
Con. Gas, Elec. Lt. & P. Pfd.....	100	96 1/2	96 1/2
Consolidation Coal.....	100	102 1/2	103
G. B. S. Brewing Co.....	100	1 1/2	1

Railroad Bonds.

Atlantic Coast 1st 4s.....	95 1/4	95 1/4	...
Atlantic Coast Conv. Deben. 4s.....	95	95 1/4	...
At. Coast (Conn.) 4s, Cts. 5-20s.....	93 1/4	95 1/4	...
Atlantic Coast (Conn.) 5s, Cts. 5-20s.....	102 1/2	...	...
Balto. & Annap. S. I. 5s.....	65	70	...
Carolina Central 4s.....	93	93 1/4	...
Coal & Coke Railway 5s.....	...	95	...
Coal & Iron Railway 5s.....	101 1/4	...	...
Georgia & Alabama 5s.....	105	106 1/4	...
Georgia & Florida 5s.....	100	77 1/2	78 1/2
Georgia, Car. & North. 1st 5s.....	102 1/4	...	...
Georgia Southern & Fla. 1st 5s.....	106 1/2	...	...
Macon, Dublin & Savannah 5s.....	98	98 1/4	...
Maryland & Pennsylvania 4s.....	86	88 1/4	...
Petersburg Class A 5s.....	107	...	...
Piedmont & Cumberland 1st 5s.....	100	...	...
Raleigh & Gaston 5s.....	...	110	...
Savannah, Fla. & West. 5s.....	110 1/4	...	...
Savannah, Fla. & West. 6s.....	125 1/4	...	...
Seaboard 4s, Stamped.....	87 1/4	87 1/4	...
Seaboard Adjustment 5s.....	106	106 1/2	...
Seaboard & Roanoke 5s.....	106	79 1/2	...
South Bound 5s.....	107	108	...
Virginia Midland 5th 5s.....	106 1/2	107	...
Western Maryland 4s.....	87 1/4	88	...
West Virginia Central 1st 6s.....	100 1/4	...	...

Street Railway Bonds.

Anacostia & Potomac 5s.....	101 1/4	...	...
Augusta Railway & Electric 5s.....	103	104	...
Balto., Catons. & E. M. 5s.....	103	...	...
Baltimore City Passenger 4 1/2s.....	100 1/4	...	...
Baltimore City Passenger 4 1/2s.....	100	100 1/4	...
Balto., Sp. Pl. & C. 4 1/2s.....	97	...	...
Baltimore Traction 1st 5s.....	107 1/4	...	...
Baltimore Traction (N. B.) 5s.....	110	...	...
Central Railway (Balto.) Con. 5s.....	107 1/4	108 1/2	...
Central Railway (Balto.) Ext. 5s.....	107 1/4	...	...
Charleston City Railway 5s.....	102 1/2	104	...
Charleston Con. Electric 5s.....	...	96 1/2	...
Chattanooga Electric 5s.....	...	103	...
Citizens' Railway, N. N.....	73	79 1/4	...
City & Suburban 5s (Balto.).....	105 1/4	106	...
City & Suburban 5s (Wash.).....	100 1/4	100 1/4	...
Fairmont & Clarksburg Trac. 5s.....	100 1/4	100 1/4	...
Lake Roland Elevated 5s.....	99 1/4	...	...
Lexington Railway 1st 5s.....	95	94	...
Maryland Electric Railway 5s.....	99	99 1/4	...
Newport News & Old Point 5s.....	...	89	...
Norfolk & Portsmouth Trac. 5s.....	99 1/4	100	...
Norfolk Railway & Light 5s.....	99 1/4	100	...
United Railways 1st 4s.....	84 1/2	85	...
United Railways Income 4s.....	65	65 1/2	...
United Railways Funding 5s.....	87	87 1/4	...

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	85	86 1/2	...
Atlanta Gas 1st 5s.....	103	...	...
Baltimore Electric 5s, Stp.....	95 1/4	96 1/4	...
Consolidated Gas 5s.....	106 1/2	108 1/4	...
Consolidated Gas 4 1/2s.....	97 1/4	97 1/4	...
Con. Gas, Elec. Lt. & P. 4 1/2s.....	87 1/4	87 1/4	...
Fairmont Coal 1st 5s.....	...	5 1/2	...
G. B. S. Brewing 1st 4s.....	42	42 1/4	...
G. B. S. Brewing Income 5s.....	...	5 1/2	...
Maryland Steel Co. 5s.....	101 1/4	102 1/2	...
Mt. Vernon-Woodby's Cot. Duck 5s.....	75	76	...
United Elec. Lt. & P. 4 1/2s.....	93	...	...

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending May 20.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	...	75
Aiken Mfg. Co. (S. C.).....	80	...
American Spinning Co. (S. C.).....	100	...
Anderson Cotton Mills (S. C.).....	48	...
Anderson Cot. Mills (S. C.) Pfd.....	100	...
Arenda Mills (S. C.).....	98	...
Arkwright Cotton Mills (S. C.).....	90	100
Augusta Factory (Ga.).....	40	...
Avondale Mills (Ala.).....	116	...
Belton Mills (S. C.).....	138	138
Brandon Mills (S. C.).....	96	103
Brogan Mills (S. C.).....	...	90
Cannon Mfg. Co. (S. C.).....	135	...
Cabarrus Cotton Mills (N. C.).....	130	135
Chadwick Mfg. Co. (N. C.) Pfd.....	100	...
Chiquola Mfg. Co. (S. C.).....	...	170
Clifton Mfg. Co. (S. C.).....	85	...
Clinton Cotton Mills (S. C.).....	130	...
Columbus Mfg. Co. (Ga.).....	98	98
Courtney Mfg. Co. (S. C.).....	...	100
Dallas Mfg. Co. (Ala.).....	90	...
Darlington Mfg. Co. (S. C.).....	90	...
D. E. Converse Co. (S. C.).....	90	...
Drayton Mills (S. C.).....	95	100
Eagle & Phenix Mills (Ga.).....	117	...
Easley Cotton Mills (S. C.).....	165	175
Enoree Mfg. Co. (S. C.).....	50	65
Enoree Mfg. Co. (S. C.) Pfd.....	95	100
Enterprise Mfg. Co. (Ga.).....	65	75
Exposition Cotton Mills (Ga.).....	...	290
Gaffney Mfg. Co. (S. C.).....	60	65
Gainesville Cotton Mills (Ga.).....	72	80
Glenwood Cotton Mills (S. C.).....	...	150
Gluck Mills (S. C.).....	...	99
Granby Cot. Mills (S. C.) 1st Pfd.....	35	45
Greenville Mfg. Co. (S. C.).....	140	145
Greenwood Cotton Mills (S. C.).....	87	90
Grendel Mills (S. C.).....	90	100
Hartsville Cotton Mill (S. C.).....	100	175
Henrietta Mills (N. C.).....	160	175
Inman Mills (S. C.).....	100	105
King Mfg. Co., J. P. (Ga.).....	80	85
Lancaster Cotton Mills (S. C.).....	130	...
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	104	112
Laurens Mills (S. C.).....	127	135
Limestone Mills (S. C.).....	155	160
Lockhart Mills (S. C.).....	...	65

Lockhart Mills (S. C.) Pfd.....	90	100
Loray Cotton Mills (N. C.) Pfd.....	95	95
Marlboro Cotton Mills (S. C.).....	102	102
Mills Mfg. Co. (S. C.).....	105	105
Molloy Mfg. Co. (S. C.).....	106	106
Monaghan Mills (S. C.).....	106	106
Monarch Cotton Mills (S. C.).....	106	106
Newberry Cotton Mills (S. C.).....	125	130
Ninety-Six Cotton Mills (S. C.).....	130	150
Norris Cotton Mills (S. C.).....	121	130
Olympia Cotton Mills (S. C.).....	90	90
Orr Cotton Mills (S. C.).....	95	98
Pacolet Mfg. Co. (S. C.).....	96	96
Pacolet Mfg. Co. (S. C.) Pfd.....	96	100
Parker Common.....	50	50
Parker Preferred.....	85	85
Peizer Mfg. Co. (S. C.).....	163	163
Piedmont Mfg. Co. (S. C.).....	175	177
Poe Mfg. Co., F. W. (S. C.).....	110	125
Saxon Mills (S. C.).....	130	130
Sibley Mfg. Co. (Ga.).....	65	68
Spartan Mills (S. C.).....	120	130
Trion Mfg. Co. (Ga.).....	130	130
Tucapau Mills (S. C.).....	310	350
Union-Buttalo (S. C.) 1st Pfd.....	75	75
Union-Buttalo (S. C.) 2d Pfd.....	16	16
Victor Mfg. Co. (S. C.).....	110	115
Warren Mfg. Co. (S. C.).....	90	95
Warren Mfg. Co. (S. C.) Pfd.....	100	105
Washington Mills (Va.) Pfd.....	106	110
Washington Mills (Va.).....	28	28
Whitney Mfg. Co. (S. C.).....	110	110
Wicasset Mills (N. C.).....	175	175
Woodruff Cotton Mills (S. C.).....	110	115
Woodside Cotton Mills (S. C.).....	95	100
Watts Mills (S. C.).....	80	90
Williamson Mills (S. C.).....	120	125

FINANCIAL CORPORATIONS.

Ala., Childersburg.—The First National Bank is reported approved; capital \$25,000; organizers, G. M. Riser of Childersburg, Ala.; J. A. Hodges, A. H. Smith, B. A. Alford and H. I. Hodges.

Ark., Siloam Springs.—Official: The Bank of Commerce incorporated; capital \$25,000; surplus \$200; J. H. Perry, president; Geo. R. Fretwell, vice-president, and Bert R. Farmer, cashier. Business began May 15.

Ga., Byromville.—The Farmers and Merchants' Bank, it is reported, expects to begin business about July 15 with John D. Walker of Sparta, Ga., president and financial agent; Dr. E. B. Davis and S. L. Webb, vice-presidents, and J. D. Maxwell, cashier.

Ga., Cordele.—The Georgia Farm Land & Loan Co. is reported to have made application for a charter; capital \$250,000. Organizers: D. A. R. Crum, C. H. Crawley and J. G. Jones.

Ga., Marietta.—The Merchants & Farmers' Bank, capital \$50,000, is reported organized with B. F. Simpson, president; R. A. Hill, vice-president, and E. C. Gurley, cashier. Directors: R. W. Sumner, J. L. Gantt, Jr., J. E. Mozly, R. A. Hill, J. J. Hardage, N. M. Mayes, R. R. Petree and J. E. Dobbs.

Ga., Plainfield.—The Bank of Plainfield is reported to have filed incorporation articles; capital \$25,000. Incorporators: L. B. Holt, Sandersville; I. N. Parkerson, E. L. Smith, J. C. Peacock, J. F. Fordham, B. F. Horne, J. H. Smith, W. A. Butler, W. U. Ussery, Plainfield; W. C. Barber, Ham Phillips, Eastman.

Ga., Union Point.—The Bank of Union Point, capital \$40,000, which succeeds the National Bank of Union Point, has organized with directors thus: President, J. E. Carlton; vice-president, H. Lamb; assistant cashier, W. H. Carlton; directors, Dr. E. T. Nash, E. L. Jackson, H. B. Hart, J. H. Carlton, J. H. Sibley.

Ky., Frankfort.—The Central Kentucky Building and Loan Association is reported to have made application for a charter; capital \$100,000; directors, C. J. Meyers, Bishop Clay, Adolph Grebbie, J. J. Fitzgerald, T. C. Adair, T. C. Bradley, George C. Morgan, C. E. Norman and J. L. Lisle; E. T. Foster is agent and general manager.

Ky., Louisville.—The Louisville Brokerage & Investment Co. is reported to have filed articles of incorporation; capital \$500; incorporators, G. W. Miller, Mack Traynor and L. O. Alverson.

La., Hammond.—Reported that the Ponchatoula Homestead Association has published its charter; capital \$500,000. Directors: A. M. Edwards, president; J. R. Abels, vice-president; L. V. Settoon, vice-president; H. P. Mitchell, secretary-treasurer; H. G. Prince, P. J. Clements, R. von Fladick, A. J. Pusey, G. C. Carter, W. J. Settoon, E. D. Parker, William Jackson, M. G. Round, F. Watkins Sherman, E. R. Wells.

Mo., Lowry.—The Farmers' State Bank is reported chartered; capital \$10,000. Among the stockholders are C. W. Nesbit, L. T. Armstrong, Leo S. Wright and G. G. Daugherty, all of Lowry.

N. C., Catawba.—Official: The People's Bank chartered and incorporated; capital \$10,000. Press dispatches say the officers are J. H. Pitts, president; Dr. Fred Y. Long, first vice-president; C. B. Ruffy, second vice-president, and a Mr. Walker, cashier.

Okla., Leedey.—The First State Bank, capital \$10,000, is reported organized by F. H.

Crow and P. E. Crow of Elk City and E. W. Buchanan of Texmo.

Okla., Miami.—Reported chartered: The Ottawa County National Bank; capital \$50,000; C. P. Williams, president; J. S. Cheyne, vice-president; R. J. Tuthill, cashier; W. M. Williams, assistant cashier.

Okla., Tulsa.—Official: The Bromide State Bank incorporated; capital \$10,000. Incorporators: Robert Galbreath, Tulsa, Okla.; Jas. D. Kivelhen, Edmond, Okla., and J. Carl Finch, Oklahoma City, Okla. Business began May 17.

S. C., Clinton.—Official: The Security Building and Loan Association incorporated; capital \$65,000. Directors: C. W. Stone, president; W. H. Simpson, vice-president; J. D. Bell, secretary and treasurer; J. I. Copeland and W. E. Bell. Business is to begin May 10.

S. C., Mountville.—The Bank of Mountville is reported to have been granted a commission; capital \$25,000; petitioners, M. C. Crisp, Y. M. Bryson, J. M. Simmons, J. L. Fellers, John F. Stokes and R. R. Fuller.

Tenn., Maury City.—The Planters' Bank, capital \$10,000, is reported organized by J. D. Riddick, J. H. Eason, J. B. Ezell, J. F. Peal, R. L. Eason and others.

Tenn., Readyville.—The Bank of Readyville, capital \$15,000, is reported being organized by S. H. Harris, J. S. Odum, W. F. Dickens, L. M. Jetton, J. D. Carter and others.

Tex., Alta Loma.—The First State Bank of Alta Loma is reported to have begun business with \$10,000 capital and \$2500 surplus. Officers: I. E. Johnson, president; E. Q. Rogers, vice-president; W. J. Stoner, cashier. The directors are I. E. Johnson, W. J. Stoner, E. Q. Rogers, Clem Schneider and W. L. Moody, Jr.

Tex., Dallas.—The Trinity Mortgage & Investment Co. is reported incorporated with \$10,000 capital by Louis and Dan Sennethell and Henry L. Haiff.

Tex., Dallas.—The Dallas Land & Loan Co. is reported chartered; capital \$50,000; incorporators, John T. Battle, B. J. Robert and J. B. Cranfill.

Tex., Fairfield.—Reported chartered: The Guaranty State Bank; capital \$10,000; incorporators, J. B. Gordon, F. G. Peyton, W. H. Miller and others.

Tex., Ganado.—The First National Bank of Ganado, capital \$25,000, is reported being organized by J. E. Harmon, E. H. Kech, C. W. McCallister, A. Carper and G. T. Everett.

Tex., Gary.—The First State Bank is reported chartered; capital \$10,000; incorporators, M. M. Hull, J. A. Knight, J. E. Cassidy and others.

Tex., Houston.—Official: The Texas Securities Co. of Houston, capital \$100,000, with \$50,000 paid in, expects to begin business soon. Jacob C. Baldwin and others interested.

Tex., Merkel.—The Southern National Bank is reported to have made application for a charter; capital \$50,000. Organizers: J. E. Fausett of Merkel, Tex.; C. B. Bryant, W. T. Sears, John Soars, M. Armstrong.

NEW SECURITIES.

Ala., Aliceville.—June 22, it is reported, an election is to be held to vote on \$9000 of school bonds.

Ala., Gadsden.—A resolution is reported passed providing for \$5500 of 6 per cent. 10-year street-improvement bonds.

Ala., Gadsden.—Official: Spitzer-Rorick & Co., Toledo, O., have purchased at par \$50,000 of 5 per cent. 30-year water-works extension and improvement bonds; denomination \$500; dated June 1, 1911. W. G. Bellenger is Mayor.

Ala., Marion.—Official: J. B. Shivers, Judge of Probate of Perry County, writes that nothing definite has been determined regarding proposed bond issue.

Ala., New Decatur.—City is reported to have sold \$20,000 of 6 per cent. 10-year sewer and sidewalk bonds.

Ala., Ozark.—Reported voted: \$15,000 of sewerage bonds.

Ala., Selma.—Official: Bids will be received until 11 A. M. July 3 for the balance of \$150,000 of the \$250,000 of 5 per cent. 30-year Dallas county road bonds; denomination \$500. P. H. Pitts is Probate Judge. The \$100,000 of the issue was bought by the City National Bank of Selma at 1.04 1/2.

Ark., Carlisle.—Reported voted: School-building bonds.

Ark., Parkin.—Reported that bids will be received by J. L. Entekin, secretary School Board, for \$18,000 of 6 per cent. bonds.

Fla., Arcadia.—Official: Voted May 16:

\$20,000 of water, \$20,000 of sewer and \$10,000 of street 5 per cent. 30-year bonds; denomination \$1000. J. L. Jones is chairman bond trustees.

Fla., Bradentown.—Reported voted: \$45,000 of water-works and sewerage bonds.

Fla., New Augustine.—The Board of Aldermen is reported to have approved the issuing of \$30,000 in notes for bridge. Eugene Masters is Mayor.

Ga., Albany.—Official: June 12 an election is to be held to vote on \$100,000 of 5 per cent. 30-year gas plant, park, cemetery, street, water-works and sewer bonds; denomination \$1000. N. F. Tift is Mayor.

Ga., Dawson.—Official: Bids will be received until June 15 for \$12,000 of 5 per cent. school bonds; denomination \$500; dated July 1, 1911; maturity, one bond, \$500 and interest, December 1, next 25 years. Address City Council. R. E. Bell is clerk.

Ga., Oglethorpe.—Bids will be received until 11 A. M. June 26 by C. A. Allison, clerk, for \$18,000 of 5 per cent. water and light bonds. J. P. Nelson is Mayor.

Ga., Roberta.—Official: Bids will be opened June 1 for \$5000 of 5 per cent. school-building bonds; denomination \$100; dated June 1, 1911; maturity June 1, 1931. Address J. S. Sandefur.

Ga., Sylvester.—An official letter confirms report that the question of holding an election to vote on Worth county road bonds is under consideration.

Ga., Valdosta.—The Grand Jury of Lowndes county is reported to have recommended an issue of \$200,000 of road bonds.

La., Coushatta.—Official: On June 15, or sooner if satisfactory bid is received, \$25,000 of 5 per cent. bonds of School District No. 1 of Red River parish will be sold; dated June 15, 1911; maturity, 1916 to 1941. Address John L. Teer, secretary School Board, Coushatta.

Md., Coleville.—Reported that an election is to be held June 10 to vote on \$12,000 of bonds for purchase of turnpike.

Md., Easton.—William C. Crawford of Baltimore, Md., is reported to have purchased at par and interest \$40,000 of 4 per cent. sewerage bonds.

Miss., Meridian.—Official: Bids will be received until 2 P. M. June 1 for \$30,000 of 5 per cent. bonds of Road District 1, Lauderdale county; denomination \$500; dated September 1, 1910. Address W. R. Pistole, Chancery Clerk.

Mo., Fulton.—Reported voted: \$4000 of library bonds.

Mo., St. Charles.—Official: Bids will be opened June 12 by J. N. Olson, Mayor, for \$30,000 of 4 per cent. 20-year water-works improvement bonds; dated June 1, 1911; maturity June 1, 1931; denomination \$1000.

N. C., Asheville.—Hamilton & Co., and Baker, Watts & Co. of Baltimore have been awarded \$430,000 of 5 per cent. bonds at 100.168.

N. C., Charlotte.—July 4, it is reported, an election is to be held to vote on \$35,000 of water, \$150,000 of sewer, \$100,000 of school and \$150,000 of street bonds, in addition to bonds for purchase of auditorium at a cost of \$65,000.

N. C., Kings Mountain.—Official: Bids will be opened June 6 for \$25,000 of 5 per cent. 30-year bonds of Kings Mountain precinct No. 4 township. Denomination \$1000. Address J. M. Patterson, G. H. Logan and F. J. Mauney.

N. C., Lenoir.—Bids will be received until June 12 for \$20,000 of 5 per cent. 30-year township road bonds. Thos. B. Wilder is secretary township road commissioners.

N. C., Murphy.—Reported that C. A. Webb & Co., Asheville, have been awarded at par \$10,000 of 6 per cent. 15-30-year Cherokee county funding bonds.

N. C., Newbern.—Dispatches say that Moseley Creek Drainage District proposes to issue \$42,000 of 6 per cent. bonds. G. V. Richardson is chairman.

N. C., Perry.—Isaac W. Sherrill, Poughkeepsie, is reported to have been awarded \$25,000 of village hall bonds at 100.23.

N. C., Raleigh.—Reported that \$15,000 of school bonds have been purchased at \$190 premium by K. G. Morris and \$12,000 of funding bonds at \$300 premium by Charles Webb of Asheville for private investors.

N. C., Raleigh.—Reported that \$310,000 of 4 per cent. 40-year North Carolina State bonds have been purchased at \$310.124 by C. C. Donald of Raleigh and A. B. Leach of New York.

N. C., Tarboro.—Official: Bids will be received until 8 P. M. July 12 for \$25,000 of 40-year paving and \$25,000 of 35-year water-works improvement 5 per cent. bonds. Dated May 1, 1911. Address Jno. A. Weddell, Clerk.

Okla., Bartlesville.—Reported that on June 26 an election is to be held in Washington county to vote on \$150,000 of courthouse and jail bonds.

Okla., Bockchito.—An election is soon to be held, it is reported, to vote on \$13,500 of school bonds.

Okla., Blackwell.—Official: John Nuveen & Co., Chicago, Ill., purchased at accrued interest and 187.50 premium \$75,000 of 5 per cent. 15-25-year school bonds. Dated April 11, 1911. Denomination \$500. B. W. Jones is clerk Board of Education.

Okla., Comanche.—Reported voted: Light and water-works bonds.

Okla., Guthrie.—Official: Bids will be received until noon June 21 for \$147,000 of via duct and park improvement bonds; maturity June 1, 1936. Address E. H. Winslow, City Clerk.

Okla., Hugo.—Official: Sutherland & Co., Kansas City, Mo., has purchased at par, a premium of \$500 and all legal expense of issue, \$245,000 of 5 per cent. 25-year Choctaw county courthouse, jail and bridge bonds; denomination \$1000; dated May 1, 1911. J. W. Milam is County Clerk.

Okla., Red Rock.—Reported that \$700 of 5 per cent. five-year jail bonds are to be sold.

Okla., Rocky.—Reported voted: \$16,000 of high-school bonds.

Okla., Sapulpa.—Reported voted: \$40,000 of high-school improvement, \$5000 of street opening and \$5000 of new cemetery bonds.

Okla., Sulphur.—Bids will be received by P. W. Chaney, City Clerk, until noon June 12 for \$3000 of 5 per cent. 20-year water bonds.

Okla., Shawnee.—County Commissioners are reported to have authorized \$59,000 of Pottawatomie county bonds.

Okla., Thomaston.—Official: Bids will be received until 8 P. M. June 15 for \$45,000 of 5 per cent. 15-30-year water-works and sewerage bonds; denomination \$1000; dated July 1, 1911. R. E. Rushin is clerk and treasurer, and Claude Worrell, Mayor.

Okla., Vian.—Speer & Co. of Fort Smith are reported to have purchased \$30,000 of water-works bonds.

S. C., Barnwell.—Official: Bids will be received by R. C. Kirkland, Mayor, until 6 P. M. June 15 for \$6000 of 6 per cent. 20-year refunding bonds; denomination \$500 or \$1000; dated April 1, 1911.

S. C., Columbia.—Official: Bids will be received by the Board of Commissioners for Richland county until 10 A. M. June 16 for \$75,000 of 6 per cent. 20-year bridge bonds of Columbia township. W. C. Thomas is clerk of the board, and W. F. Muller, chairman.

S. C., Dillon.—Reported voted: \$80,000 of water-works and sewerage bonds.

S. C., Edgefield.—Official: Bids will be received until June 27 by A. E. Padgett, chairman, for \$15,000 of 5 per cent. 20-year electric-lighting-plant bonds. Dated July 1, 1911. Maturity July 1, 1931.

S. C., Edgefield.—Official: Bids will be received by W. H. Harling, Clerk and Treasurer, until 3 o'clock June 27 for \$15,000 of 5 per cent. 40-year electric-light bonds voted May 18; denomination to suit purchaser; dated July 1, 1911; maturity July 1, 1931.

S. C., Greenville.—Reported voted: \$40,000 of school-building bonds.

S. C., Honea Path.—An election is to be held June 5, it is reported, to vote on \$7000 of school bonds.

Tenn., Cookeville.—The Bluffton Construction Co. of Bluffton, Ind., is reported to have purchased at par \$100,000 of 4 1/2 per cent. 30-year Putnam county road bonds.

Tenn., Kingston.—Roane county is reported authorized to sell \$45,000 of funding bonds.

Tenn., McKenzie.—Bids will be received until 7.30 P. M. June 30 for \$40,000 of 6 per cent. 5-20-year light and water bonds. F. D. Walpole is City Recorder.

Tenn., Memphis.—Press dispatches state that the County Court of Shelby county has voted \$200,000 of 4 1/2 per cent. 30-year school-improvement bonds. Denomination \$1000.

Tenn., Springfield.—Robertson county has issued and sold at par \$150,000 of 4 per cent. pike bonds.

Tenn., St. Elmo.—Reported that bonds for sewer construction are to be issued.

Tex., Austin.—The Attorney-General has approved the following securities: \$25,000 of street improvement and \$10,000 of schoolhouse 5 per cent. 10-50-year bonds of Paris; \$8000 of 5 per cent. 1-40-year Winfield independent school district bonds; \$4600 of 5 per cent. 40-

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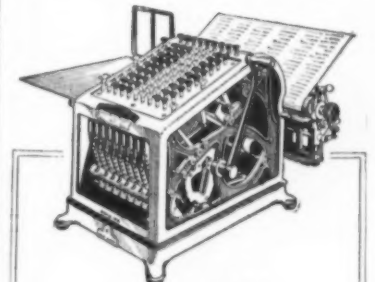
References—Any Bank in Savannah

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year bonds of Coke county common school district No. 25 schoolhouse bonds; \$1000 of 5 per cent. 20-year bonds of Van Zandt county common school district No. 18; \$2500 of 5 per cent. 10-40-year bonds of Port Lavaca independent school district; \$10,000 of 5 per cent. 20-40-year Garrison independent school district schoolhouse bonds; \$103,000, \$44,000, \$220,000, \$69,000, \$25,000 and \$83,400 of bonds of Ellis county road district, 2 to 7, inclusive.

Tex., Bonham.—Official: Voted May 15: \$30,000 of water-works improvement and \$100,000 of street improvement 5 per cent. 40-year bonds; denomination \$1000; dated June 1, 1911, and July 1, 1911, respectively. If bonds are approved by Attorney-General, it is expected that they will be ready for sale about June 15. T. W. Ragsdale is Mayor.

Tex., Brownsville.—Official: Bids will be received until 7 P. M. June 17 for \$130,000 of 5 per cent. 20-40-year bonds as follows: Electric-light plant extension and improvement, \$15,000; street improvement and pavement, \$80,000; water-works enlargement, extension and improvement \$35,000; denomination \$500; dated March 27, 1911. Address Wm. J. Russell, city attorney.

Tex., Childress.—June 5, it is reported, an election is to be held to vote on \$30,000 of school-building bonds.

Tex., Claude.—Official: Voted: \$60,000 of 5 per cent. 40-year Armstrong county courthouse bonds; denomination \$500; dated May 15, 1911; date of opening bids not yet decided. Address R. A. Campbell, commissioner.

Tex., Cuero.—Reported voted: \$10,000 of school bonds.

Tex., Dayton.—Reported voted: \$275,000 of road bonds.

Tex., Del Rio.—Official: Voted May 17: \$7000 of 5 per cent. 10-year independent school district building and repair bonds; denomination \$500; dated June 1, 1911. C. O. Fakes is secretary School Commissioners.

Tex., Emma.—June 10, it is reported, an election is to be held to vote on \$43,000 of Crosby county courthouse and jail bonds.

Tex., Forney.—An official letter confirms report that an election is to be held to vote on bonds. F. M. Adams is City Clerk.

Tex., Galveston.—Bids will be received until 11 A. M. June 19 by John M. Murch, County Auditor, for \$500,000 of 5 per cent. 20-40-year Galveston county causeway bridge

bonds. Denomination: 200 of \$500 and 400 of \$1000.

Tex., Groveton.—An official letter confirms report that an election is to be held in June to vote on Trinity county road bonds.

Tex., Honey Grove.—Official: Bids will be opened July 1 for \$5000 of 5 per cent. 20-40-year street-improvement bonds; denomination \$1000; dated July 1, 1911. Address S. H. Gardner, Mayor.

Tex., Itasca.—An official letter confirms report of sale of school bonds.

Tex., Jourdantown.—Reported voted: \$20,000 of 5 per cent. 40-year Jourdantown independent school district bonds. It is stated the bonds have been sold.

Tex., Houston.—Reported voted: \$500,000 of 4½ per cent. 30-year school bonds. H. B. Rice is Mayor.

Tex., Lockhart.—June 24, it is reported, an election is to be held to vote on \$35,000 of 5 per cent. 40-year bonds of road precinct No. 4.

Tex., Longview.—Reported that an election is to be held in Gregg county within 30 days to vote on \$200,000 of road bonds.

Tex., McGregor.—Reported voted: \$100,000 of road bonds of McGregor justice precinct.

Tex., Palestine.—Official: Voted May 16: \$20,000 of 5 per cent. 40-year school-building bonds; denomination \$500; date of opening bids not yet determined. Address A. L. Bowers, Mayor. S. P. Allen is secretary.

Tex., Rosenberg.—An election is to be held June 23, it is reported, to vote on \$75,000 of public road bonds.

Tex., San Marcos.—Reported voted: \$20,000 of Hays county road-improvement bonds.

Tex., Silverton.—Reported that bids will be received at any time by J. A. Bain, secretary Board of Education, for \$27,500 of 5 per cent. 40-year bonds of school district No. 1; denomination \$100; dated April 10, 1911; maturity April 10, 1931.

Tex., Sterling City.—Official: Voted April 29: \$19,000 of 5 per cent. 43-year Sterling county jail bonds; denomination \$1000. Address J. S. Johnston, Johnthe, Tex. Leonora B. Cole is County Clerk at Sterling City.

Tex., Taylor.—June 30, it is reported, an election is to be held to vote on \$16,000 of school and \$4000 of crematory 5 per cent. 40-year bonds.

Tex., Teague.—Bids will be received at any

time, it is reported, by J. Ward Davis, secretary Board of Education, for \$10,000 of 5 per cent. 10-40-year independent school district bonds.

Tex., Waco.—June 27, it is reported, an election is to be held to vote on \$50,000 of street, \$80,000 of sewer and \$70,000 of school bonds. H. B. Mistrot is Mayor.

Tex., Waco.—McLennan county will vote June 27, it is reported, on \$200,000 of highway improvement bonds.

Tex., Winona.—The question of holding an election to vote on school bonds is reported under consideration.

Va., Farmville.—Official: Bids will be received until noon June 12 for \$65,000 of 5 per cent. 20-year water-works bonds; denomination \$500; dated July 1, 1911. Address Joe E. Garland, clerk.

Va., Fairfield.—Reported that an election has been called by the Board of Supervisors of Henrico county to vote on \$35,000 of Fairfield school bonds.

Va., Radford.—H. P. Anderson, City Clerk, is reported receiving bids for the following 5 per cent. bonds: School improvements, \$25,000; street and courthouse improvements, \$25,000; refunding bonds of Old Radford, \$17,000, and school property, \$21,000; denomination \$1000; dated July 1, 1910; maturity, July 1, 1940.

Va., Richmond.—June 20, it is reported, an election is to be held to vote on \$35,000 of school bonds of Fairfield district, Henrico county.

W. Va., Clay.—Dispatches state that \$25,000 of Clay county high-school bonds have been voted.

W. Va., Huntington.—Reported voted: \$300,000 of 4½ per cent. 20-30-year Cabell county road bonds. F. F. McCullough is County Clerk.

W. Va., Morgantown.—Official: June 24 an election is to be held to vote on \$100,000 of 5 per cent. paving and sewer bonds. If election carries, bonds will be offered. E. G. Donley is Mayor.

W. Va., Parkersburg.—Bids will be received by A. B. White, chairman bond committee of Board of Supervisors of Wood county, until 2 P. M. June 29 for \$180,000 of road district bonds.

W. Va., Princeton.—Official: Voted by East River district, Mercer county: \$50,000 bonds

for high school at Princeton. E. W. Hale, R. E. Thornton and H. G. Woods have been appointed a committee to sell the bonds. J. A. McKinzie is president Board of Education of East River District.

W. Va., Shinnston.—Reported voted. \$10,000 of paving bonds.

PROPOSALS

Electric Light Plant

Sealed proposals will be received by the Mayor and Board of Aldermen of the City of Tupelo, Miss., up to 2 P. M. June 16, 1911, for the furnishing of the following machinery and materials, and in accordance with the plans and specifications on file in the office of the City Clerk and in the office of the Consulting Engineer for the City of Tupelo, Miss. (Plans and specifications will be ready after June 2.)

2 Cross Compound Condensing 4-valve or Corliss type Engines, direct connected.
2 250 K. V. A. three-phase 60-cycle 2400-volt 200 R. P. M. Revolving Field Engine type Generators, complete, with field rheostat.
1 Motor-Driven Exciter and 1 Steam-Driven Exciter of ample capacity to excite the above generators and running in parallel at 80 per cent. power factor.

1 Generator Voltage Regulator.
125-light Tungsten System of Street Lighting and 15-light Metallic Flame Street Lighting System, complete, with rectifier.

1 60 H. P. 2200-volt three-phase 60-cycle 600 R. P. M. Squirrel Cage Induction Motor with chain drive.

1 5 H. P. 220-volt three-phase 60-cycle 1750 R. P. M. Induction Motor, direct connected to centrifugal pump of ample capacity to deliver 350 gallons of water per minute against 15 lbs. pressure.

7 Transformers of 2½ K. W. each.
13 Transformers of 5 K. W. each.
7 Transformers of 7½ K. W. each.
8 Transformers of 10 K. W. each.
Marble Switchboard, consisting of 8 panels.

Bids will also be received for materials for overhead pole-line construction.

Each proposal must be accompanied with a certified check on some solvent bank for 5 per cent. of the total amount of the bid, as a guarantee of good faith on the part of the bidder.

The right to accept or reject any and all bids is hereby expressly reserved.

As time for delivery of the above machinery and material is a material consideration, the city reserves the right to demand of the successful bidder a satisfactory surety bond for at least 50 per cent. of the amount of contract, to be delivered within 10 days after notice of award of contract.

D. W. ROBBINS, Mayor.
C. E. GOODLET, City Clerk.
R. C. HUSTON, Consulting Engineer,
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May 18th, 1911.

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Mr. Gould has invested some millions of dollars in Virginia, and controls the street railway systems of Richmond and Norfolk, and a number of large water-powers at Richmond, Petersburg and elsewhere—he is a type of the busy men of millions in the North who always find time to study the Manufacturers Record.

From the South comes the following, as another type of hundreds of letters:

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Bogalusa, La., May 22, 1911.

Manufacturers Record,
Baltimore, Md.

Dear Sir:—

We want you to put our name on your list as subscribers for one year for your good paper, the Manufacturers Record. As we have received more than fifty letters from all parts of U. S. in answer to the small add you so kindly inserted in your paper, we would ask that you insert in your next issue that we have awarded all contracts for our new bank and office building, now in construction in North Bogalusa.

We wish to congratulate you and also recommend to the public the benefits to be derived; also the progress and development of the South of which your paper takes such interest in.

With the latest and up to date news that is inserted in the Record it should be to an advantage every business man in the South to make it his business and read the Manufacturers Record.

Yours very truly,
LOUIS H. SPERLING, Cashier.

These letters indicate the hold which the Manufacturers Record has upon the country; how it brings capital to the South, and how the information which it publishes about new enterprises in the South is of such value to this section.

From W. G. Maxwell, Salinas, Cal., at one time actively identified with Southern development, comes a letter in which he says: "How really this Coast needs a Manufacturers Record of its own."

The United States Consul at Prague, Bohemia, Mr. J. F. Brittain, in a letter to the Manufacturers Record under date of May 2nd says that after the Record has remained in the Consulate for a few weeks, he sends it to one of the libraries visited by a number of people who can read English, and to this adds: "There are more business people from the South writing concerning possible foreign markets than previously wrote."

Occasionally one hears of some one who claims to be too busy to read, but the people who are really doing business and achieving things in this country, whether they be the great capitalists of the North or the business leaders of the South, find time to read the Manufacturers Record to their own great profit.

W. Va., Wellsburg.—Reported that \$85,000 of 4½ per cent. 10-34-year school-building bonds will soon be placed on the market.

At Farmville, Va., bids will be received until noon June 12 for \$65,000 of 5 per cent. 20-year water-works bonds. Further particulars will be found in the advertising columns.

At Columbia, S. C., bids will be received until 10 A. M. June 16 for \$75,000 of 6 per cent. 20-year Columbia Township bridge bonds. Further particulars will be found in the advertising columns.

At Selma, Ala., bids will be received until 11 A. M. July 3 for \$150,000 of 5 per cent. 20-year Dallas county road bonds. Further particulars will be found in the advertising columns.

At Galveston, Tex., bids will be received until 11 A. M. June 19 for \$500,000 of 5 per cent. 20-40-year Galveston county causeway bridge bonds. Further particulars will be found in the advertising columns.

At Brownsville, Tex., bids will be received until 7 P. M. June 17 for \$150,000 of 5 per cent. 20-40-year light, street and water-works bonds. Further particulars will be found in the advertising columns.

At Thomaston, Ga., bids will be received until 8 P. M. June 15 for \$45,000 of 5 per cent. 15-30-year water-works and sewerage bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The Union State Bank of East Bernard, Tex., is reported increasing its capital from \$10,000 to \$15,000.

SURETY BONDS

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BALTIMORE, MD.

The Farmers & Merchants' State Bank of Gustine, Tex., has, it is reported, increased its capital from \$10,000 to \$20,000.

The Bourbon Bank of Paris, Ky., according to press dispatches, has taken over the business of the Citizens' Bank of Paris.

The Farmers and Merchants' Bank of Catoosa, Okla., according to press dispatches, is to be converted into a national bank and the capital increased from \$15,000 to \$25,000.

The consolidation of the State National Bank and the Oklahoma City National Bank, both of Oklahoma City, Okla., under the name of the former institution, has, according to press dispatches, been consummated.

At the annual meeting of the Missouri Bankers' Association, held at Kansas City, May 24 and 25, the following officers were elected for the ensuing year: President, A. H. Waite, Joplin; vice-president, R. B. Calkins, St. Joseph; treasurer, J. B. Jennings, Moberly; secretary, W. F. Keyser, Sedalia.

At the annual convention of the Oklahoma Bankers' Association, held at Oklahoma City, May 22 and 23, the following officers were elected for the following year: T. J. Hartman, acting vice-president of the State Bank of Commerce of Sulphur, president; A. E. Ramsey, Muskogee, first vice-president; G. D. Dawes, Blackwell, second vice-president; W. B. Harrison, Enid, secretary, and I. H. Nakdimen, Salisaw, treasurer.

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400 Rooms European Plan

RATES:

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COMPANY, HARTFORD, CONN.**

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Barrett's Paving Pitch being applied to a brick street in HIAWATHA, KANSAS.

We call attention to the novel pouring machines shown in this photograph, which we understand were successfully used on this job.

"Every Joint is an Expansion Joint"

The chief trouble with cement-filled brick pavement is the inadequacy of the special expansion joints to provide for the changes caused by expansion and contraction. No matter how carefully expansion joints are used, sooner or later changes of temperature will create strains that will tear the pavement apart and produce long, unsightly cracks. The ideal solution of it is to have "every joint an expansion joint." Instead of using pitch filler in two or three joints every forty or fifty feet, use the pitch in every joint surrounding each individual brick. Under these circumstances, expansion and contraction have no effect whatever. Cracks and breaks do not occur. If one brick should be broken by a hard blow, its neighbor is not affected at all. When the brick expands, the pitch in the joints is squeezed up a little higher; when the brick contracts, the pitch simply sinks a little lower. The pitch has great tenacity and will adhere

firmly to the brick, giving to the foundation continuous protection against water and frost.

The supporting power of pitch is, of course, much less than that of cement, but this is an advantage, not a defect. Pitch has a sufficient body to prevent the bricks from grinding on each other or shifting, but on the other hand, it allows each brick to rest on the foundation independently of its neighbors. If the foundation is properly laid in the first place, the pitch will protect it from damage by water, and the contour of the pavement will never be seriously altered.

As contrasted with asphalt filler, pitch retains its elasticity longer, has greater adhesive power, and accordingly is more waterproof. It does not, like asphalt, cleave off the brick, and expose the foundation to the percolation of water in cold weather. The best paving pitch is "Barrett's Paving Pitch," especially made for the purpose. Booklet on request. Address our nearest office.

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